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ABSTRACT

This workbook is designed to provide beginning and experienced teachers and administrators with a guide to evaluating and selecting materials with respect to the student who uses them, the instructor who teaches from them, and the program that orders them. It is intended to be either self-instructive or used in conjunction with a staff development workshop. Modules 1-4 consider the participants--the student and the teacher. Topics are forces that affect the returning adult students, teaching styles, assessment of teacher areas of expertise, and learning styles. Modules 5-11 discuss the text itself, including textbook organization; orientation of material; the roles of diagnosis, reinforcement, evaluation, and assessment; adult tone; format and appearance; readability formulas; and teacher development of supplemental lessons. Module 12 discusses the design of the program and how it affects the texts that are used in a class. Components of each module may include some or all of the following: an objective, introduction, informative material, examples, activities, suggestions for the reader, and a list of references. A simulation game, a suggested outline for a materials evaluation workshop, and a materials evaluation checklist are appended. (YLB)

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FOREWORD

Regardless of program context, materials evaluation is an integral part of program development and instructional design. The materials selected must both meet the needs of the student and fulfill the goals of the program. This handbook is intended to help beginning and experienced teachers and administrators evaluate and select materials most appropriate for their programs.

This handbook is a product of the Region I Adult Education Service Center, one of the six such Centers established throughout the state by the Illinois State Board of Education in 1976. The Region I Center, operated by Northern Illinois University, serves approximately 300 literacy teachers in the four county area around Chicago.

The author of this guide, Mary Charuhas, has served as the Materials Specialist at the Center since 1980, where she has consulted with many teachers and administrators on the use of materials in their programs. In addition to being a doctoral student at NIU in Adult Continuing Education, she teaches a graduate course on materials evaluation for adult education. Prior to coming to the Service Center, she taught for five years in literacy programs in Illinois and is the author of a math text for adults.

I hope you find this guide useful and take the time to get acquainted with the Service Center staff to discuss materials evaluation as well as any other matters concerning your literacy program.

Phyllis M. Cunningham Project Director Region I Adult Education Service Center	Ronald M. Cervero Associate Project Director Region I Adult Education Service Center

PREFACE

The examples and references in this book are directed to adult basic education (ABE) and general education development (GED). The methodology presented here would be applicable to any text in the adult performance level or English as a second language. Those subjects, however, are not discussed. This book does not discuss the specific skills necessary to teach any of the above courses. Instead, it has been written to present a process for evaluating and selecting materials for educational programs.

This book goes beyond the work of any one individual. The outline of the content and text format was initially designed by Donna Amstutz. Phyllis Cunningham, Edwin Simpson, Sandra Ratcliff and Ronald Cervero reviewed it and offered constructive criticism. The Service Center staff, Dave Castellanos, Suzanne Davenport, and Sean Courtney spent many hours with me discussing philosophy and organization of the text. A special thanks goes to Gail Rice for her editing suggestions.

DISCLAIMER

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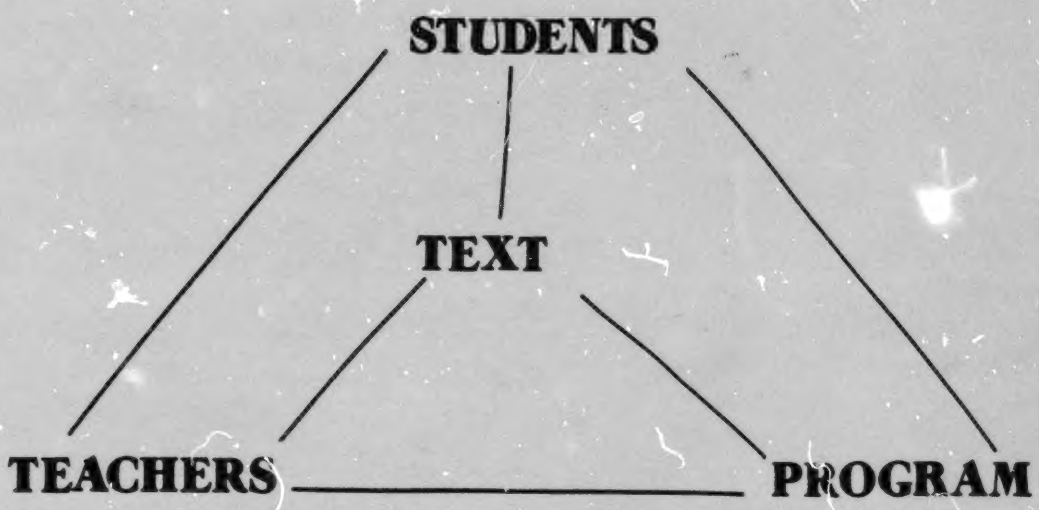
INTRODUCTION

Materials evaluation is often a haphazard and last-minute activity in most programs. Many times, text selections are based on word-of-mouth, a salesperson's brochure, or whatever can be delivered on two weeks' notice. Considering the role of materials and their function in the classroom, materials evaluation deserves more care.

This workbook is designed to provide the teacher or administrator with a guide to evaluating materials with respect to the student who uses them, the instructor who teaches from them, and the program which orders them. It is designed to be either self-instructive or used in conjunction with a staff development workshop. Wide margins are provided for note-taking and making specific references to your own program.

The following model illustrates three key issues affecting material evaluation and selection.



The three issues, teacher, student and program, are interactive. The program's schedule, budget, recruiting efforts and organization will have an affect on the kinds of students and teachers attracted to it. The needs of the student will affect program design and subjects taught. The teacher will affect program delivery and student participation.

Keeping this interaction in mind, this book will discuss how these three issues affect material selection.

When selecting materials for adult education (ABE/GED), it is important to know the participants of the program. As Module One points out, the students' needs and personal goals will affect the kinds of materials that should be used in class. At the same time, the selection of materials will also be affected by how they are used. Teachers have different teaching styles as discussed in Module Two. Their teaching styles will also help determine what kind of organization features they need in their books. Teachers often have different levels of ability. Not all ABE/GED teachers have a background in all the subjects which they must teach. Teachers must evaluate their knowledge strengths, as discussed in Module Three, so that they can select texts which will supplement the topics with which they are unfamiliar.

As teachers have different teaching preferences, students have different learning preferences. In Module Four, you, the reader, have an opportunity to evaluate your own learning style. Once you are aware of your own learning preferences, you may begin to notice that your teaching style may not include learners with learning styles different from your own.

After taking the first four modules to consider the student and the teacher, Modules Five through Eleven discuss the text itself. Module Five discusses the various organizational features found in most textbooks. Module Six discusses the orientation of the text. Content-oriented materials are designed to familiarize the student with the basic facts and concepts in a field of study. Skills-devlopment materials are designed to help the student learn how to learn. Each has a different orientation to the manual. Pre-tests, post-tests, exercises and answer keys are discussed in Module Seven.

Materials presented to adults should reflect adult experiences. General audience materials should avoid biases and prejudices. These concerns are covered in Module Eight.

People prefer to read materials which are pleasant to look at and clear to understand. Format and appearance, as discussed in Module Nine, are as important as readability formulae, which is discussed in Module Ten. These formulae provide a means of matching the student with the text. Giving the students materials which challenge their abilities, yet are not so difficult as to lead to frustration, will keep their interest in learning.

No commercial material is complete in and of itself. Module Eleven discusses the process for developing your own materials to supplement the text.

Finally, the design of the program and how it affects the texts that are used in a class is discussed. The number of days a week the class meets, the budget, the program's goals, will all play a part in materials that are selected and purchased.

Some additional information is included in the appendices. Appendix A provides a simulation for those people who want to do some of the exercises, but do not have access to facts and figures about a program. Appendix B provides a suggested outline for using this guide in an extensive training workshop for material evaluation. Appendix C is a list of the most important factors to consider when evaluating a text.

Do not consider this a complete guide. The bibliography at the end of each module will provide you with texts which are more detailed. Instead, it is meant to give the teacher and administrator an overview of the major factors which should be considered when selecting a text.

OBJECTIVE

At the completion of this module, you will be able to identify the forces affecting the returning adult student.

Adults enter your program with a wide variety of skills and experiences. Though these skills may have been learned informally in the home, at work, and in the community, generally they are directly related to the skills and knowledge necessary for the classroom.

But, in coming to class, students also bring with them many apprehensions and fears. Their earlier experiences with formal education may have been extremely negative, resulting in feelings of intense resentment. Some will have kept their lack of education a secret for so long that they will find it difficult to discuss their educational needs openly. For almost all of them, entering the classroom is a risk. Whether they have been out of school as long as 20 years or as little as one month, the adult education classroom will be a foreign environment to them.

Not only will the students be affected by their fears, but they will also be affected by the changes in the lifestyles required by attending class. The class schedule may interfere with their recreation, jobs or social commitments. Attending the class may require major family adjustments. Responsibilities at home may have to be reallocated, and schedules changed to accommodate the new routine. These difficulties may lead to resentment at home, tempting the student to quit.

It is important to appreciate the life experience of the adults entering your class, to recognize their apprehension about returning to school, and to understand the fact that there may be many conflicting factors in their lives which have priority over your classroom lessons. Your selection of materials can determine how comfortable adults feel in your class, which will, in turn, affect their interest, motivation, retention and success in your program.

PURPOSE FOR BEING IN CLASS

The students' decisions to register for a class, based on title and course description, are their first indications of their purpose for attending. They assume the teacher will provide the necessary information to achieve the goals as stated in the catalog. As teacher, you should select materials appropriate for that objective. In other words, the same basic skills may need different texts in different situations. If you are teaching GED review, you need a text with a test-oriented format. On the other hand, if you are teaching a pre-vocational training class, you need materials which are job-related.

Yet, purposes for attending class are often more complicated than that. Personal reasons such as "getting out of the house" or "making friends" can affect the type of text you select for your class. In this case, you may want texts that can maintain high interest for individuals or ones that allow social interaction. Take the time to survey your students, then base your material selection on the results. It may make the difference in the success or failure for the students and the class.

STUDENT BACKGROUND

You should consider academic, demographic, social and economic backgrounds of your students in selecting materials. Students who can identify with the materials and relate them to their own lives will be much more interested in working on them than those students who cannot.

It is condescending to have low-income rural adults reading materials designed for a high-income urban population. It is even worse to have adults reading materials which are designed solely for the young. Reading materials designed for the young may awaken fears that the adults are not "on time" in their academic skills. Though the subject matter that must be studied may be the same, the subtle implication that the adults are no smarter than teenagers can affect their whole attitude toward learning.

One approach to learning about your students is to let them evaluate their own skills and abilities. They know quite well what their skills are. If there is a great discrepancy between what they think they can do and what their placement test scores indicate, they may have test-taking anxiety or be overly anxious about their lack of academic knowledge, or be unrealistic about their ability to handle the class. It is a good indication that those students will need counseling.

THE STUDENT IN RELATION TO THE TOTAL CLASS

In addition, the composition of the class, as a whole, needs to be considered. Are the students generally young adults without jobs, or are they employed, middle-aged people who are seeking promotion? Perhaps the students come from widely varying backgrounds. Each of these situations requires different types of materials.

As you try to match materials with each of your students' backgrounds, interests or needs, you will find you must compromise. Maintaining a sense of unity for the entire class will have to be delicately balanced against the needs of the individual.

ACTIVITY ONE

A. Develop a student information sheet which will help you gather background information from your students,

OR

B. Develop a classroom exercise which will elicit background information from your students. (For example: round robin discussions, small group, partners reporting about each other.)

Information you may feel is important:

Name
Address
Phone
Sex
Ethnic background
Family status
Reasons for attending
Educational experience
GED tests completed (scores)
Entry reading level
Entry math level
Career goals
Social security number
Constitution test completed

Consider including any information needed to fill out state or federal funding forms.

ACTIVITY TWO

Create a chart which will summarize the general make-up of your class.

ACTIVITY THREE

From the data in the above chart, summarize the composition of your class; note groupings, special interests or particular needs.

Turn the page for examples.

SUGGESTIONS TO THE READER

1.

Course Number ________

Name ______________________________ Date ______________

Address ______________________________ ______________

(City) (State)

Ethnic Background ____________ Date of Birth ____________ Phone ____________

How long have you been out of school? ______________________________

Is this your first GED class? ______________________________

Have you taken any GED tests before? ________ Where? ______________

What scores did you receive?

Grammar ________ Literature ________

Social Studies ________ Math ________

Natural Science ________

Did you pass the U.S./Illinois Constitution test in high school? ____________

Do you have time to study at home? ______________________________

Are you planning a particular career after you complete the GED? ____________

Which one? ______________________________

Do you need more school in order to do this? ______________________________

Would you like more information about a particular career? ____________

Name three things that you are good at doing or that you enjoy doing:

____

____

____

____

If you had a day all to yourself, what would you do with it?

____

____

____

Do you have any special problems you want me to know about like transportation, babysitting, financial, language, etc.?

____

____

____

2.

DECISION TO ATTEND GED CLASSES

1. Who will be affected by my attending this class? (Circle)

Spouse Parents Children Friends

2. How much time will you need to take this class?

The number of hours a week I'll spend in class	________
The number of hours a week I'll spend doing homework	________
The number of hours a week I'll spend commuting	________
Total	________

3. In order to come to class, I am going to have to give up ____________________.

4. In order to study for this class, I am going to give up ____________________.

5. The cost of taking this class is $________

Books and materials will cost	$________
Transportation back and forth	$________
Child care	$________
Time lost from job	$________
Total	$________

6. While taking this class, my spouse will say ____________________.

If he/she does, I will feel ____________________.

7. While I'm taking this class, my parents will say ____________________.

If they do, I will feel ____________________.

8. While I'm taking this class, my children will say ____________________.

If they do, I will feel ____________________.

9. While I'm taking this class, my friends will say ____________________.

If they do, I will feel ____________________.

10. This class is going to be ____________.

11. When I finish this class, I will feel very ____________________.

SELF-EVALUATION

SKILL	I Do This Well	I Need Some Help	I Cannot Do This
1. Concentrate and make good use of study time.			
2. Organize my time for study.			
3. Take tests effectively.			
4. Be a good listener.			
5. Be willing to share my knowledge with others.			
6. Follow written directions.			
7. Use the dictionary; an encyclopedia.			
8. Obtain information from charts, graphs and maps.			
9. Spell words correctly most of the time.			
10. Find the main idea when I read.			
11. Locate the facts within a reading selection.			
12. Apply what I have read to new situations.			
13. Interpret poetry.			
14. Use clues within the passage to define words.			
15. Add, subtract, multiply and divide whole numbers.			
16. Add, subtract, multiply and divide fractions.			
17. Use decimals.			
18. Use percents.			
19. Solve word problems in math.			
20. Solve for the unknown in algebra.			
21. Solve problems in geometry.			
22. Punctuate correctly.			
23. Use capital letters correctly.			
24. Recognize a complete sentence.			
25. Recognize correct English grammar usage.			

STUDENT	M/F	AGE	ETHNIC BACKGROUND	EDUCATIONAL EXPERIENCE	GED TEST COMPLETION	REASONS FOR ATTENDING CLASS	READING LEVEL	MATH LEVEL

Bischof, Ledford. Adult Psychology, Second Edition. New York: Harper and Row, 1976.

Bowren, Fay R., and Miles V. Zintz. Teaching Reading in Adult Basic Education. Dubuque, Iowa: William C. Brown Co., 1977.

Cross, K. Patricia. Accent on Learning. San Francisco: Jossey-Bass Publishers, 1977.

Cross, K. Patricia. Adults as Learners. San Francisco: Jossey Bass Publishers, 1981.

Kidd, J. R. How Adults Learn. Chicago: Follett Publishing Company, 1973.

Marks, Muriel. GED Instructor's Handbook. Springfield, Illinois: Illinois State Board of Education, no date.

National Association for Public Continuing and Adult Education (NAPCAE). A Treasury of Techniques for Teaching Adults. Washington, DC: NAPCAE, 1964.

NAPCAE. Tested Techniques for Teachers of Adults. Washington, DC: NAPCAE, 1972.

NAPCAE. The Second Treasury of Techniques for Teaching Adults. Washington, DC: NAPCAE. 1970.

Newman, Anabel. Adult Basic Education Reading. Boston: Allyn and Bacon, Inc., 1980.

Pope, Lillie. Guidelines for Teaching Remedial Reading, Second Edition. Brooklyn, NY: Book-Lab, Inc., 1975.

MODULE 2

Teaching Styles

OBJECTIVE:

On completion of this module, you will be able to assess your own teaching style.

Instructors generally have a style or method of teaching with which they feel most comfortable. Very often, this is based on a combination of factors: The composition of the class, the objectives of the program, and the teacher's preferences for relating to people. By evaluating these factors, teachers can determine which teaching style will best suit their needs.

Materials are usually designed with regard to how they will be used by the teacher in the classroom. Those which will be used in a teacher-directed classroom will be different from those used in an individualized program.

TEACHER-DIRECTED INSTRUCTION

Teacher-directed materials should provide a manual to the teacher which will give an overview of the curriculum structure, provide examples for teaching each concept, advise on additional extra-curricular activities, and give answer keys. Information to the student can be kept to a minimum because directions and objectives are usually given by the instructor. The materials themselves assume that all the students are capable of learning the materials at the same time and at the same rate. It also assumes that there will be regular attendance and, if not, the students will be able to catch up to the rest of the class.

INDIVIDUALIZED INSTRUCTION

Individualized materials, on the other hand, assume that the students in the class will be at various entry levels and will be working through the material at different times and different rates. Since the students will be working independently, they must be provided with clearly written directions, objectives and examples.

Answer keys should be available for students grading their own work; indicators for determining successful completion of a lesson should be stated; and tests should be provided for students to measure their progress.

In order to determine how you prefer to manage your classroom, and, consequently, how you should select which organizational features you need for your classroom use, you should evaluate your teaching style.

ACTIVITY ONE

Below, you'll find a survey of open-ended questions about you and your class. Answer the questions either by selecting one of the alternatives that best reflect your feelings OR by responding to those questions in your own words.

EVALUATION OF TEACHING STYLES

1. My class consists of people with ________________
____
____
   a. _____ similar entry-level skills
   b. _____ easily identifiable groups of skills
   c. _____ widely divergent entry-level skills
2. My students' goals are ________________________
____
____
   a. _____ very similar
   b. _____ easily grouped
   c. _____ widely divergent
3. My students work ____________________________
____
____
   a. _____ at the same speed
   b. _____ at varying speeds
4. Attendance for my class is _____________________
____
____
   a. _____ generally regular with teacher contacting absent students
   b. _____ irregular because students tend to have transportation, child care and employment problems

5. I feel most comfortable managing my class ________

____

____

   a. _____ as one unit
   b. _____ in small groups
   c. _____ individual assignments

6. I feel the most effective way to present a concept is ____

____

____

   a. _____ lecture with the use of A/V equipment
   b. _____ lecture with the use of a chalkboard
   c. _____ short lecture and reinforcing exercises
   d. _____ no lecture, just consultation and individual assignments

7. Students should do practice exercises ___________

____

____

   a. _____ immediately following the introduction of each new concept
   b. _____ as work to be completed at home before the next class meeting

8. When I am working with a group of students _______

____

____

   a. _____ I feel I can give them the most accurate information in the most efficient manner
   b. _____ I feel they can learn as much from each other as they can from me
   c. _____ I feel that, with a small amount of prompting, they can figure out the right answer on their own

9. When I teach a lesson ______________________________

____

____

   a. _____ I feel the students should take notes as I speak
   b. _____ I feel that my information should be a catalyst for the student to begin discussion

10. When I teach a lesson to an entire class at once

____

____

____

   a. _____ I am sure that the entire group has been correctly introduced to the new concept
   b. _____ I notice the class separating into two or more comprehension levels
   c. _____ I feel that only a few are benefiting from the lesson because I am either speaking beyond or under their comprehension abilities

11. When I break the class into small work groups, I feel ______________________________

____

____

   a. _____ uncomfortable because I do not have control over what the other groups are doing
   b. _____ that each group is getting practice in the areas which meet their own specific needs.

12. When I have to manage more than one group at a time ____

____

____

a. _____ I find myself and the class becoming very confused

b. _____ I find that, by sticking to a single subject and using my prescribed curriculum, the management of small groups becomes relatively easy

13. When I work with my students in small groups, they feel ____

____

____

a. _____ that they are not getting the information they came for

b. _____ they may be receiving shorter lessons, but those lessons are directed to their specific needs

14. The sense of unity in my class ____________________

____

____

a. _____ tends to decrease when I break them up into small groups

b. _____ tends to increase within the group that I form

15. When I work with a totally individualized classroom

____

____

____

a. _____ I feel more like a paper pusher than a teacher

b. _____ I feel that I have more time for counseling and facilitating the goals of each student

---

16. My program goal is ______________________________

____

____

a. _____ to cover as much material as possible in the shortest time

b. _____ to provide counseling and personal growth first and skills second

c. _____ to allow students to develop skills at their own speed

17. My students ______________________________

____

____

a. _____ tend to work independently very well - they need little supervision

b. _____ tend to need some supervision and assistance, but generally prefer to work on their own

c. _____ tend to need a great deal of supervision and have their work under constant surveillance

This is a guideline to indicate where your answers are with regard to managing your class. They are not meant to be absolute. The chart below will give you an indication of your teaching style.

TEACHER-DIRECTED CLASS INSTRUCTION				INDIVIDUALIZED STUDENT INSTRUCTION	
1.	A		B	C	
2.	A		B	C	
3.	A			B	
4.	A			B	
5.	A		B	C	
6.	A	B	C	D	
7.	B			A	
8.	A		B	C	
9.	A		B		
10.	A		B	C	
11.	A		B	C	
12.	A		B		
13.	A		B		
14.	A		B		
15.	A			B	
16.	A			B	C
17.	C		B	A	

ACTIVITY TWO

Summarize your teaching style on the basis of this survey. Indicate exceptions or special conditions which would affect your decision for classroom management. Then identify the kinds of materials you would want to use in your classroom, as we have discussed in the module.

Those of you who completed the sentence stems independently can probably identify your preferences for classroom management by reading your responses and circling key words or phrases. Look at the words you circled.

See if they can relate to some of the alternatives offered, and match them in the chart. If not, then look at those words and phrases, and see if you can identify a tendency or trend in your responses.

REFERENCES

Cross, K. Patricia. Adults as Learners. San Francisco: Jossey Bass Publishers, 1981.

Klevins, Chester, editor. Materials and Methods in Continuing Education. New York: Klevens Publications, Inc., 1976. (See especially units IV and V.)

Knowles, Malcolm. Self-Directed Learning. New York: Association Press, 1975.

Knox, Alan B., editor. "Teaching Adults Effectively," New Directions for Continuing Education, No. 6. San Francisco: Jossey Bass, Inc., 1980.

Knox, Alan B., editor "Reaching Hard-to-Reach Adults," New Directions for Continuing Education, No. 8. San Francisco: Jossey Bass, Inc., 1980.

Knox, Alan B., editor "Increasing Basic Skills by Developmental Studies," New Directions for Higher Education, No. 20. San Francisco: Jossey Bass, Inc., 1977.

Newman, Anabel. Adult Basic Education Reading. Boston: Allyn and Bacon, 1980.

OBJECTIVE

On completion of this module, you will be able to assess your own areas of expertise.

Instructors need to assess their own knowledge of the content areas and skills they are expected to teach. Some programs require that a teacher be able to teach all five content areas of the GED, or be able to teach nonreaders along with high school level readers in the same class. However, not all teachers are expert in all areas of ABE or GED. If you find it necessary to teach a subject with which you are unfamiliar, then you will have to be very careful in selecting the text for that subject. You will probably need material in which the content is carefully structured; the content is placed in real-life context; the sequencing of all information is very smooth and each transition is carefully explained; the diagrams and accompanying graphics are very clear and function to explain the concepts being presented; and the answers to all exercises include explanations. This way you can feel relatively secure that the subject will be covered completely and effectively.

If you find yourself in that position, look over the structured material carefully, then find additional texts to supplement it. When you feel you understand the concepts, try to explain them to a colleague. If the other person understands the concepts, then you can probably present them to the class with confidence.

Remember, honesty is more important than appearing all-knowing. If you don't know something, say so. You can then create a spontaneous lesson on learning "how to find the answer," a skill with which many people are unfamiliar.

Below is a simple self-evaluation. Indicate your own personal assessment of your abilities.

SELF-ASSESSMENT INVENTORY

Referring to the skills below, I feel that I understand and can communicate the following concepts to my students.

	Very Well	Somewhat, But I Need Some More Help	Not Well At All
1. The basic principles of phonics			
2. The experience approach to learning to read			
3. Word pattern development of reading skills			
4. Context clue technique of vocabulary building			
5. Methods for teaching reading comprehension skills			
6. Reference materials skills			
7. Methods for interpreting charts			
8. Methods for interpreting graphs			
9. Methods for interpreting maps			
10. Basic arithmetic skills whole numbers			
11. Decimals			
12. Fractions			
13. Percents			
14. Algebra			
15. Geometry			
16. Coordinate algebra			
17. Set theory			
18. The basic rules of English grammar			

	Very Well	Somewhat, But I Need Some More Help	Not Well At All
19. The basic rules of spelling			
20. The basic rules of punctuation			
21. The basic rules of paragraph development			
22. The major concepts of literature: prose, poetry, drama			
23. The major concepts of science: earth science, biology, chemistry and physics			
24. The major concepts of social studies: economics, geography, political science, and behavioral science			
25. The major concepts of the U.S. and Illinois State Constitution			
26. The major objectives of the GED test			
27. Career interest inventories			
28. Career values inventories			
29. Career selection			

Fill in additional skills necessary for your particular program.

30. ______________________________

31. ______________________________

32. ______________________________

33. ______________________________

34. ______________________________

35. ______________________________

ACTIVITY ONE

Write a paragraph summarizing your self-assessment by identifying those concept clusters in which you feel confident and those in which you feel you need further preparation.

ACTIVITY TWO

Take a cluster of skills in which you feel you do not have a strong background and list some methods you could use to adequately prepare for teaching that concept area.

Some simple things you can do to improve your skills in a particular subject area are:

1. Observe a colleague teaching the subject.
2. Discuss the subject with a person who has some expertise in that area.
3. Watch Public TV which may have a program on that topic.
4. Research the subject at your local library using dictionaries, encyclopedias, various textbooks, movies, slide tapes in that subject area.

REFERENCES

Adult Basic Education: A Guide for Teachers and Teacher Trainees. Washington, DC: NAPCAE, 1966.

Information Pamphlet on the New GED Tests. Washington, DC: GED Testing Service, 1977.

OBJECTIVE

At the completion of this module, you will be able to identify the components of learning style and relate them to various aspects of classroom management.

Learning style is another component of classroom management which will affect the types of materials you use. Some approaches to the learning task are:

LEARNING INDEPENDENTLY OR LEARNING IN GROUPS

Preference for one type of learning over another can affect classroom methods which, in turn, affects the materials that are used. Some people learn best if they can discuss a new concept with others, question it, then relate it to other knowledge. Others prefer to study a new concept privately at first, asking questions only when absolutely necessary.

Students who prefer learning in groups will need texts which present options for class projects, controversial topics for discussion, and exercises which emphasize team building skills. These activities may take the form of values clarification, simulations, and non-competitive games.

Students who prefer learning independently will need texts which provide clear instructions, examples, exercises, answer keys with explanations, references for places to review incorrect responses, success indicators, and directions for continuing to the next lesson.

LEARNING CONCEPTS VISUALLY, AURALLY, TACTILELY

The method in which the materials are presented can affect the students' ability to understand it. Some people may not be able to understand a concept unless they actively experience it. For example, they would not understand a passage about the operation of a lever unless they could set up the experiment and test it. Others would prefer to have another person explain the operation. While still others would understand it if they just saw it in action through a film or diagram. It's sometimes difficult to determine which specific means of learning a concept a person can benefit from most.

A psychologist like Bruner would argue that learning takes place in three stages which he has called the enactive, iconic and symbolic modes, respectively. He explains it thusly. First people learn a concept enactively. In other words, first they must experience a phenomenon. For example, they must actively use a lever to move an object. Only after they have an experiential background for a concept, can they interpret a visual representation of it. This next ability is referred to as the iconic mode. A person who has used a lever then can interpret a diagram of a lever and understand how it functions graphically. Once the students have accumulated experiences (enactive mode) and learned to interpret their graphic representations (the iconic mode), then, and only then, will they be able to discuss it abstractly through reading or lecture (symbolic mode).

For you as the teacher, the most significant aspect of this view of the learning process is to be aware of the necessity to vary your teaching techniques and to use all three methods whenever possible.

That is, provide models of concepts or allow your students to actually perform experiments. Show movies, use an overhead projector, slides, tapes and diagrams to explain concepts. Then provide written materials which can cover the topic in detail.

COLLABORATIVE LEARNING OR COMPETITIVE LEARNING

Collaborative learning, or participatory learning, is designed so that students work together with a teacher or facilitator to learn a task. This is particularly appropriate for some cultures such as the Navajo Indians who refrain from competing and will refuse to "show up" a fellow classmate. In this situation, you will need materials which do not compare the student to the others in the class. You will want to avoid whole class testing or calling on the students for right or wrong answers. Instead, you will want open-ended questions which allow the students to develop their reasoning skills. This technique will lead the students to develop opinions which are neither correct or incorrect, but are based on fact.

Competitive learning, which is what most of the students in your classes are accustomed to, is based on students vying with each other for grades or favors. This type of learning style preference is oriented to the teacher-directed classroom. To support this kind of learning style, the teacher will need to be in control of directions, explanations, exams and answer keys. The students will direct their studies to "what the teacher wants" and not what they themselves want.

SELF-DIRECTED LEARNING OR AUTHORITY-DIRECTED LEARNING

The amount of independence or direction adults seek in a learning situation can vary enormously. In fact, it may vary according to topic. The goal of the teacher in an adult basic education classroom should be to facilitate the students' process of becoming independent learners. In order to achieve this independence, teachers need to be able to help the students to:

1. Understand their needs
2. Set realistic goals
3. Be open to all sources of information
4. Evaluate their accomplishments

Part of this concept is the amount of energy the students bring to the learning task. This can be a function of their other daily responsibilities at home and at work. It can also be a function of their insecurity about their own learning abilities. Thus, in the context of your classroom, even a normally self-directed learner may prefer a teacher-directed learning environment. Awareness of the fact that some students may be too insecure or fatigued to be self-directing can help the teacher select materials which will develop the students' independence at the most appropriate rate.

Materials which make options available to both the student and teacher would be the best design. The text would have clear directions and examples. There would be additional instructions and examples in the teacher's manual. The answer key with explanation would be separate. In this way, either the teacher or the students could use it to grade work. The text would provide suggestions for additional activities which students could pursue on their own.

ORGANIZATIONAL FRAMEWORK

In order to better understand the information the student is studying, many students prefer to have the new concepts developed out of what they already know. (Jerome Bruner's work in instructional theory uses this approach.) For example, a teacher can remind the students about the rules for adding dollars and cents, then relate those rules to the new rules for adding decimals. Thus, they discover a higher order of conceptualizing numbers. Materials meeting this learning style would begin with familiar real-life situations and develop the abstract concepts from them.

David Ausubel says, in his theory that uses advance organizers prior to instruction, that students understand a new task better if they are given the abstract conceptualization first. That way, all new information can fit into the framework that the abstract concept provides. For example, a teacher can discuss the number system and how numbers are divided into parts in multiples of tens in the abstract. Then the teacher would fit money under that categorization and, later, decimals. Materials meeting this learning style would begin with the abstract concept, then define it through more familiar examples.

A method modified from the teachings of Paulo Freire would have the content of what is to be learned elicited from the student. When the students determine for themselves what is socially and politically meaningful to them in their environment, they will more likely be motivated to learn the material. This is called conscientization.

If the students indicate a need for consumer protection, they would choose a textbook that shows how a person who cannot add and subtract money can be cheated by salespeople and "rip-off artists." Then the text would introduce dollars and cents as a topic to be learned.

By being aware of the learning styles of your students, you will be better able to present information and to supplement materials in ways which will be most relevant to them.

ACTIVITY ONE

Below is an open-ended questionnaire which reflects various learning styles. Answer the questionnaire by selecting one of the alternatives which best reflects your learning style OR by responding to the question in your own words.

By taking this learning style inventory, you can become aware of your own learning style By becoming aware of your own particular learning style, you can better appreciate the learning style of others.

1. When I learn a new concept, I prefer to first:

   ____

   ____

   a. Have someone explain it to me.
   b. Read about it on my own.
   c. See it presented visually through a movie or diagram.
   d. Experiment with it in a "hands on" experience.

2. When I learn a new concept, it helps if I:

   ____

   ____

   a. Study it by myself.
   b. Have a chance to discuss it with a group of people.
   c. Be a member of a class in which someone presents the concept.

3. I learn best when:

   ____

   ____

   a. The instructor designs and directs all activities.
   b. My opinion and needs are considered in the design of activities.
   c. I design and select my own learning activities.

4. I prefer to use materials that:

____

____

   a. The teacher selects.
   b. I have some choice in the selection.
   c. I choose.

5. The activities and materials I use:

____

____

   a. Should be exactly the same as the material everyone else has in the class.
   b. May be different from the other students', it doesn't matter to me.
   c. I choose materials that fit my needs. It doesn't matter what the others are using.

6. I prefer to participate in activities that:

____

____

   a. Are exactly the same for the entire class.
   b. Are designed specifically for the groups I am in.
   c. Specifically meet my own needs and are separate from the class.

7. I learn best when:

____

____

   a. I select my own rate for using the materials.
   b. The teacher and I select a speed which meets both our needs.
   c. The teacher selects the materials for the entire class.

8. I feel most comfortable when:

____

____

a. I work alone in independent study.
b. I work as one participant in a whole class discussion.
c. I work with a group which is working on similar activities.

9. I like to study in a room where:

____

____

a. The teacher is directing the activities.
b. Each person is working independently.
c. I have to participate in a small group.

10. I feel that I:

____

____

a. Work well when I am completely independent in class.
b. Work well in small group discussions.
c. Work well as a passive participant in a class.

11. When I learn a concept, I prefer to:

____

____

a. Have someone describe in advance what it is we're going to study.
b. Have all the facts and details first so that I can make my own generalizations.
c. Select my own learning concepts based on important issues in my community.

---

12. When I am learning something new:

____

____

   a. I enjoy competing for grades with the members of the class.
   b. I prefer to work together with the other students - helping each other to find the correct answers.
   c. I want to be graded on what I master, not on what other people do in the class.

ACTIVITY TWO

Write a short paragraph summarizing your learning style. Compare your learning style to your teaching style. Ask yourself whether or not your teaching style is flexible enough to accommodate people with learning styles different from your own.

Those of you who completed the sentence stems independently can probably identify your preferences for classroom management by reading your responses and circling key words or phrases. Now just look at the words you circled.

See if they can relate to some of the alternatives offered, and match them in the chart. If not, then look at those words and phrases, and see if you can identify a tendency or trend in your responses.

For those of you who selected the alternatives in the questionnaire, consider the following:

- People who prefer to learn independently will be likely to check 2a, 5c, 6c, 8g, 9b and 10a. They will also be likely to select 3c, 4c and 7a, which indicate that they are self-directed learners.
- People who prefer to learn as a participant in a class would most likely select 2c, 5a, 6a, 8a, 9a and 10c. Very often, they will also prefer authority directed classes and choose alternatives 3a, 4a and 7c.
- The people who are not ready to be completely independent, but want to have some input into their instruction, would be likely to want to work within small groups. They would choose 2b, 5b, 6b, 8c, 9c and 10b. They will also be interested in having some control over what they study. Thus, they would select 3b, 4b and 7b.
- Collaborative learners will most likely choose 12b, while competitive learners will select 12a. Those learners who remove themselves from relating to the group at all and try to learn for learning's sake will select 12c.

- People who prefer to learn visually will select 1c; aurally, 1a; tactilely, 1d; and abstractly, 1b.
- Those people who prefer an experiential base to organize information will probably choose 11b, those who prefer a conceptual framework will choose 11a, and those who prefer a social conscientization framework, 11c.

Ausubel, D. P. and J. D. Novack. Educational Psychology: A Cognitive View, Second Edition. New York: Hall Rinehart, 1978.

Bruner, Jerome S. Toward a Theory of Instruction. Cambridge, MA: Belnap Press, 1966.

Cross, Patricia K. Accent on Learning. San Francisco: Jossey Bass Publishers, 1977.

Freire, Paulo. Pedagogy of the Oppressed. New York: Continuum Publishing Corporation, 1970.

Klevins, Chester. Materials and Methods in Continuing Education. New York: Klevens Publications, Inc., 1976. See especially articles on pages 178, 222 and 233.

Knowles, Malcolm. The Adult Learner: A Neglected Species. Gulf Publishing Co., 1973.

Knowles, Malcom. The Modern Practice of Adult Education, Revised and Updated. New York: Association Press, 1980.

Knowles, Malcom. Self Directed Learning. New York: Association Press, 1975.

Knox, Alan. Adult Development and Learning. San Francisco: Jossey Bass Publishers, 1978.

Smith, Robert M. Learning How to Learn. DeKalb, Illinois: Eric Clearinghouse in Career Education in cooperation with Northern Illinois University, 1976.

MODULE 5

Textbook Organization

OBJECTIVE

At the completion of this module, you will be able to identify the major features of textbook organization.

"Organization" refers to the fundamental design of the text. For the most part, these are student aids which are used to facilitate the flow of the material.

Table of Contents provides a guide to the material which the book will cover. Be aware, however, the titles and headings may not accurately reflect the actual content.

Chapters which are clearly marked make it easier for the student to recognize lesson units.

Diagnosis and Evaluation in the form of pre-tests, post-tests and unit tests should be clearly marked so that students don't accidentally begin working a pre-test, mistakenly thinking that it's a lesson, then find it is far too difficult for them to finish. Some texts have pre and post-tests on different colored pages as a means of alerting the students to a change from a lesson.

Lessons should be clearly marked and titled. The more basic the text is, the more important it is for the lesson to be placed on one-page or on a two-page spread. For students who have low level reading skills, it is very disconcerting for them to have to switch pages back and forth to understand a lesson.

Objectives within lessons give the student a sense of purpose and direction for completing the exercise. These stated learner objectives may be most important in material that is individualized. Beware of objectives that are so broad as to become irrelevant or meaningless. Even more importantly, be certain that the objectives are, in fact, related to the content of the lesson. In other words, don't stop with noting that objectives are included in the lesson; evaluate them as well.

Directions for doing the lesson should be concise, but easily understood. Be careful, directions often assume that students have prior knowledge which they may not have, or the directions may use vocabulary not found elsewhere in the material. Vocabulary and sentence structure for directions should match the level of instruction and the skills being taught. This rule is often ignored by many math and English grammar materials which often use fifth and sixth grade vocabulary to teach first and second grade concepts.

Reinforcement exercises should be supplied to give the students at least some practice for every new concept or skill that is taught. If the text is designed for students who are learning a concept or skill for the first time, then the practice should be extensive. If, however, they are reviewing, then practice can be kept to a minimum.

An Index can help a student or teacher quickly locate needed information. Depending on the kind of material, both subject and author-cited indexes are helpful.

Glossaries provide definitions of key words used in the text. Some glossaries will refer students to the pages where the word is introduced, or use the word meaningfully in a sentence. These contextual clues may be more important than the actual definition of the word because the students will be able to associate the word with its correct use in a sentence and the context in which the word is being used. For example. The word "tone" does not have the same meaning in literature as in music.

Assessment or answer keys can be provided to the teacher either in a manual, following an exercise, or in a separate section of the text. Those texts that allow students to evaluate their own work are most useful in a classroom requiring flexibility or individualization.

Those that limit their use to the teacher are more appropriate for teacher-directed classrooms. The more the students work independently or the more the text is used to introduce new materials, the more the answer key should provide explanations as well as the correct answer.

The answer key can also be keyed to concepts within a test or exercise. It can indicate the type of question the student missed. Then it can refer the students to the pages which they can review.

For Example:

	Answer	Explanation	Question Type	Review
1.	4.7	$\begin{array}{r} \overset{7}{8}.{}^{1}0 \\ -\,4.3 \\ \hline 4.7 \end{array}$	Subtraction of Decimals	See Pages 15 - 18

	Answer	Explanation	Question Type	Review
2.	1.A	Five of the six sentences in the paragraph refer to various areas of North America.	Main Idea	See Pages 92 - 97

A simpler answer key might use a chart such as:

Question Type	Questions	Review Pages
Main Idea	1, 6, 11	10 - 15
Details	2, 3, 7, 8, 12, 13	16 - 20
Drawing Conclusions	4, 9, 14	21 - 25
Words In Context	5, 10, 15	26 - 30

Progress Charts allow students to keep a personal record of their achievements throughout the use of the text. These charts usually indicate the number of correct responses made by the student.

Rank the textbook organizers in order of importance for one of the following subject areas: Math, English Grammar, Social Studies, Science, and Literature.

- Table of Contents
- Chapter Headings
- Lesson Headings
- Pre-Tests
- Post-Tests
- Unit Tests
- Objectives
- Index
- Glossary
- Answer Keys
- Progress Chart

Friedman, Lora and David W. Knight. Handbook for Teachers of Reading in Adult Basic Education. Hattisburg, MS: University of Southern Mississippi, no date (ED 075688).

Friedman, Lora and David W. Knight. Readings for Teachers of Reading in Adult Basic Education. Hattisburg, MS: University of Southern Mississippi, no date (ED 075687).

Gall, Meridith D. Handbook for Evaluating and Selecting Curriculum Materials. Boston: Allyn and Bacon, Inc., 1981.

Hays, Ann, et.al. Adult Education Council of Greater Chicago, An Investigation of Materials and Methods for the Introductory Stage of Adult Literacy Education. Springfield: Illinois State Office of Education, 1967 (ED014629).

Simpson, Edwin and Phillip Loveall. Preparing and Selecting Printed Educational Materials for New Adult Readers. Eric Clearinghouse in Career Information Series No. 9 (CE007631).

OBJECTIVE

Upon completion of this module, you will be able to determine if material is skill-oriented or content-oriented.

Texts are usually developed to emphasize either instruction in content development or skill development. Content-oriented material focuses on the subject matter. The students are to learn the concepts of a topic such as biology, car maintenance or government. Skill development is usually independent of the content and focuses on improving the cognitive or affective abilities of the students.

CONTENT-ORIENTED MATERIAL

In evaluating content-oriented material, check to make certain that the information is accurate and all concepts are current. Check on the publishers' reputation with reliable sources. Look to see if references are cited in the teacher's manual or text.

Material within the text should be complete in and of itself. In other words, the student should be able to comprehend the material with a minimum of background information. The concepts within the text and within each lesson should develop from the known to the unknown, from the concrete to the abstract, and from simple ideas to complex ones. The content should relate to realistic adult experiences. The lessons should move sequentially with each new concept related to the previously taught one.

For example, a discussion of the human cell should move from the cell to the organization of a tissue to a discussion of an organ. From the organ, the lesson can proceed to a study of the system within which the organ functions. At the introduction of each new concept, the text should relate it to the previously learned information. The role of the individual cell should be related to the cell's function within a tissue. The role of a tissue should be related to its function within an organ. In this manner, the students are learning organized units of information rather than lots of individual facts.

An excellent theoretical guideline for concept development would be Gagne's hierarchy of learning. This theory demonstrates how students should proceed from signal learning to stimulus-response, chaining, verbal association, multiple discrimination, concept, principle and, finally, problem-solving as a sequence for learning.

The scope of the text or the amount of material it covers should be adequate to meet the needs of the course and the objectives of the student. For example, a person reviewing for the GED does not need a textbook on poetry to take the reading skills test. On the other hand, a GED review book which has only 15 pages of science reading may not include vital concepts necessary to answer the discrete items on the GED exam. In that case, the instructor will have to provide supplemental texts.

The text should be arranged through layout and design as well as through clear writing so that facts and concepts which are important are clearly recognizable. Topic headings and illustrations should be used to support important concepts and not the minor ones.

SKILL DEVELOPMENT MATERIAL

Almost any kind of reading may be used for skill development. The emphasis in skill development is not learning facts or concepts, but learning how to learn. Thus, skill development makes the students independent in their acquisition of knowledge.

Reading comprehension skill development should also proceed from the simple to the complex. An excellent guideline for this development is the Taxonomy of Educational Objectives in the Cognitive Domain by Benjamin Bloom, et al. This system demonstrates how thinking proceeds from knowledge of the facts to comprehension, application, analysis, syntheses and, finally, to evaluation. Each new skill should be taught independently, then interrelated to previously taught skills. Whenever possible, these skills should be integrated with realistic problem-solving.

For example, students reviewing an advertisement of a car can indicate its main idea or theme and point out significant facts used to sell the car. Then, they can make inferences about the car from values illustrated in the advertisement, such as power, money, prestige or love in the advertisement. They can see whether these inferences can be applied to similar advertising techniques and can evaluate their effect on the consumer. Through this process, the student is developing skills rather than studying content.

There are no easy answers for choosing between content or skills-oriented texts for GED. In making that decision, various factors should be considered. Content materials take much more time to present. They require technical vocabulary and concept development. The content itself is only one field of study. Skill development, on the other hand, takes as much time to study, but can be applied to a variety of subject areas.

A more compelling reason for considering an emphasis on skills is the GED test itself. Every one of the five exams requires some reading. Math has word problems, English grammar has logic and organization. The other three are reading tests. It is only in each of the Social Science and Science tests that there are approximately 20 discrete items. (Those which do not relate back to a reading passage.) The rest of the three tests' questions are classifiable as knowledge, comprehension, interpretation, inference, application or evaluation.

This chart summarizes the basic information about the GED exam.

What Every GED Teacher Wants To Know

Title	Number of Questions	Amt. of Time	No. of Correct Questions to Score	
			35	45
WRITING SKILLS	80	90 minutes	23 - 28*	40 - 41*
Spelling, Punctuation				
Capitalization 25%				
Grammar and Usage 30%				
Diction and Style 15%				
Sentence Structure 15%				
Logic and Organization 15%				
SOCIAL STUDIES	60	90 minutes	16 - 18	28 - 32
Economic 20%				
Geography 15%				
Political Science 20%				
History 25%				
Behavioral Science 20%				
SCIENCE	60	90 minutes	13 - 17	24 - 28
Biology 50%				
Earth Science 20%				
Chemistry 15%				
Physics 15%				
READING SKILLS	40	60 minutes	9 - 12	23 - 25
Practical Reading 15%				
General Reading 35%				
Prose Literature 35%				
Poetry 10%				
Drama 5%				
MATHEMATICS	50	75 minutes	14 - 16	24 - 25
Arithmetic 55%				
Geometry 20%				
Algebra 25%				

*discrepancies due to various test forms

ACTIVITY

Choose either content-oriented or skills-development materials. Discuss how the class activities, instructional exercises and question types would differ between content-oriented material and skills development material.

SUGGESTIONS TO THE READER

	Content Oriented	Skills Development
Class Activites:	- Learning facts - Relating facts to previously known information - Developing higher order concepts for relating facts to one another	- Learning how to learn - Develop information-seeking skills - Develop abilities for seeking patterns - Recognize fact and opinion - Solve problems
Instructional Exercises:	- All instructional exercises would be oriented to learning the facts, relating them to each other, and developing concepts.	- All exercises would be directed toward understanding how one makes decisions about how to problem solve.
Question Types:	- Question types would be content-related. They would refer to how different aspects of the content relate to one another.	- Questions would be directed toward a student's being able to defend how they got an answer or made a decision.

REFERENCES

Bloom, Benjamin S., editor. Taxonomy of Educational Objectives: Handbook 1: The Cognitive Domain. New York: David McKay, 1956.

Gagne, Robert and Leslie Briggs. Principles of Instructional Design, Second Edition. New York: Rinehart and Winston, 1979.

Herber, Harold L. Teaching Reading in the Content Areas. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1970.

MODULE 7

Diagnosis, Reinforcement, Evaluation and Assessment

OBJECTIVE

At the completion of this module, you will be able to identify the roles diagnosis, reinforcement, evaluation and assessment play in a text.

As discussed in Module 5, the instructional component can include the following:

- Diagnosis in the form of a pre-test to determine whether or not a student needs to do the instructional component.
- Reinforcement in the form of exercises to allow the student an opportunity to practice the new concept of skill.
- Evaluation in the form of a post-test or unit-test to let the student or teacher know how well the student has mastered the skill.
- Assessment in the form of a chart or statement in the answer key which indicates the type of question that has been asked.

DIAGNOSIS

Prior to instruction, diagnosis or a pre-test can help the students or instructor in determining the amount of practice the students need with instructional material. The results will affect whether you assign the student a text which is designed for reviewing a concept or skill, or teaching a concept or skill for the first time. In fact, successful completion of a pre-test may indicate that that unit need not be studied at all. Pre-tests should always be consistent with the objectives of the lesson and the format of the exercises. That is the best way to determine whether or not the student should do the lesson.

REINFORCEMENT

Reinforcement is usually found in the form of practice exercises. It is essential that these exercises reinforce the concept or skill indicated in the objective of the lesson or the purpose of the lesson. The objectives may not be specifically stated in the student's text, but even if they are, do not assume that the exercises will automatically practice the skill indicated - always take the time to determine whether or not the exercises are coordinated with the instructional goals.

There are various types of reinforcement exercises available: multiple choice, true and false, matching, fill in the blank, short answer, or essay questions. Other exercises may require the student to change the material from an abstract form to a graphic one by making charts, tables, graphs, maps or diagrams by using the information provided in the instructional material. Some texts will provide suggestions for independent study which allows the students to apply their own creative interpretation to an exercise; other texts suggest group projects which provide students with the opportunity to develop communication skills.

Each type of exercise serves a different purpose. Students studying for a GED test where they must respond by choosing multiple-choice questions will be better off practicing in that format. Students who are mastering a skill or concept for the first time may need short answer, fill-in-the-blank or matching exercises to become familiar with the terminology. Students participating in remedial programs for college entry may need practice with writing essays or practice with interpretation of data.

EVALUATION

Evaluation, which can be in the form of a post-test or unit-test, allows the teacher or students to determine how well the students have learned the skills or concepts necessary to proceed to the next lesson. Evaluation should always be consistent with the objectives of the lesson and the format for practice exercises. It is not fair to the students to change question style or question difficulty in a test. They should always be allowed to practice the exact skills they will be tested on.

ASSESSMENT

Assessment or feedback to the student is given in varying degrees of quality. Some texts will give students a score telling them the number of correct responses. Others will indicate, usually through a chart or a statement in the answer key, the kind of questions the student missed. For content-oriented materials, the questions might be marked identifying the concept, such as biology, earth science or physics. For skills-oriented materials, the questions might be marked with skill titles, such as fact, main idea or inference questions. Thus, the students have a means of determining their weaknesses and strengths within the scope of the test.

Often, students will perform poorly only in one particular skill or content area rather than throughout the entire exam. If the students are made aware of this, the students can then zero in on a particular problem area for further study and not be required to study the entire lesson over again. Still other answer keys will refer the students to various sections of the text or to practice pages in supplemental texts for review and additional reinforcement. This procedure allows the greatest amount of independence on the students' part for mastering a concept or skill. It also gives the instructor the greatest opportunity for flexibility in choosing a teaching procedure.

Assessment of these diagnostic, reinforcement or evaluative components may be available to the teacher or the student. Some answer keys are grouped in the back of the text for easy access by the instructor or student. Other answer keys are written within the text. Still other answer keys are available separately or within a teacher's manual. Preference for either arrangement will depend, for the most part, on the instructor's teaching style and whether the teacher or students correct the exercises.

Review the material you currently have available. You will find that most of the texts either emphasize instruction with a minimum amount of reinforcement, or they will emphasize reinforcement with a minimum amount of instruction or explanation. Some of them will provide pre and post-tests, others will not. Some texts are designed only to provide sample or practice tests and no instruction at all. It is really important to keep a variety of these materials available in order to match them to your students' needs.

ACTIVITY ONE

Find materials to represent the following:

1. Materials which emphasizes instruction and provides a mimimum amount of reinforcement.
2. Materials which emphasize reinforcement with little or no instruction.
3. Materials which provide information on students' strengths and weaknesses within the scope.
4. Materials which key the questions missed to review or additional work pages.
5. Materials which are totally diagnostic and/or evaluative.

ACTIVITY TWO

Assume that you are an editor of a textbook that will be published this fall. The subject of the text can be anything that is taught in ABE or GED classes.

The company you work for has already decided that they can only afford to print a 100-page book. Three of those pages have to be the title, the copyright and the introduction.

With the remaining 97 pages, you have to determine the following:

1. Which concepts should be taught and in what order.
2. How many pages should be devoted to each concept.
3. What the instructional design of the text is; whether it is for individualized classrooms or teacher-directed classrooms.
4. What the emphasis of the text should be; diagnosis, instruction, reinforcement, review or assessment.
5. What the orientation of the text is; whether it is skills-oriented or content-oriented.

1. A text which emphasizes instruction and provides a minimum amount of reinforcement.

   The major GED Review books which contain all five exams in one textbook.

2. A text which emphasizes reinforcement with little or no instruction.

   Supplemental texts fall into this category, such as books designed to have the pages pulled out and copies made on a spirit duplicator. Texts that are designed to provide only skills practice or drill. Such texts are usually found in a series. They will give page after page of drills on finding the main idea or following directions. Each book in the series usually drills at the next higher grade level. Flash cards also fall into this category.

3. Materials which provide information on students' strengths and weaknesses.

   More and more publishers are including this practice within their texts. Contemporary, Scott-Foresman, Cambridge and McGraw-Hill to name just a few.

4. Materials which keys questions missed to review pages or to supplemental texts.

   Cambridge, Scott-Foresman and Contemporary provide that additional information.

5. Materials which are totally diagnostic and/or evaluative.

   The best known are:

   - The Official GED Practice Test by General Educational Development. New York: Cambridge, 1979.
   - Evaluative Post-Tests for GED Readiness, Contemporary Books, Chicago, Illinois, 1979.

Mager, Robert F. Measuring Instructional Intent. Belmont, CA, 1974.

Mager, Robert F. Preparing Instructional Objectives, Second Edition. Belmont, CA, 1975.

OBJECTIVE

At the completion of this module, you will be able to identify the factors involved in determining if materials are written for adults and are written in an unbiased manner.

ADULT TONE

Adult memory improves with organization. That is, when new information is presented, it is important that the facts be related to each other and then related to the real world experiences of adults. Materials should provide the learners with opportunities to identify with what is being learned; to apply this knowledge to their own lives. This will increase the instructional base of the information they have learned, thus making it easier for the students to conceptualize it.

Problems presented as a part of a lesson should reflect adult concerns. The material should always be from an adult's point of view, especially when discussing children and their activities. That point of view can make a great deal of difference in motivation.

As you look at a material, first determine its audience. It may be specified in the introduction or in a teacher's manual. If it is not, you will have to use your own judgment. Then you should determine if the material accurately reflects the values, interests and experiences of the students in question without criticizing a particular cultural, religious or economic group; or demonstrating sex, age or health bias.

In textbooks that are designed for a general audience, take the time to note the following questions:

1. Which people are portrayed as having positions of authority?
2. Which people are portrayed as having power or as having professional jobs?
3. What ethnic cultures are being assumed as meals are prepared?

4. What religions are reflected as holidays are discussed?
5. Are the lifestyles of the people portrayed standard and do they reflect society norms?
6. What is the range of ages represented in the text?
7. What are the assumed income levels of those people?
8. Are they all healthy?
9. Do any have handicaps?
10. When are the pronouns he and she used?
11. What people are not mentioned in the text?
12. Who has been selected out for special attention?
13. Are all people portrayed as working together as equals?
14. Which people are portrayed as "we," the author and the reader of the text, and "they," everyone else.

The last question is very subtle and difficult to detect. For example:

> Christmas is the holiday we observe on December 25th which celebrates the birth of the Christ child. It's a time when all families gather together and share food and gifts.

This discussion of Christmas assumes that the readers' customs are identical with those of the author. All families do not gather together to share gifts on Christmas day. For some Christians, it's a very holy religious day. Gift-giving is reserved for earlier or later. Not only that, the discussion of Christmas has effectively ignored all non-Christian religions and atheists. If those people are among the readership of the text, they will feel left out. If they are not among the readership, the reader will have a biased view that their way of celebrating Christmas is the only way to celebrate.

In reviewing materials, it is best to reflect a moment on stereotypes for all the groups mentioned above. For general audience textbooks, these stereotypes should be carefully avoided and every effort made to illustrate the greatest diversity possible. To determine whether or not a text is attempting this diversity, first examine the illustrations and look for patterns. Next, read the material looking for stereotypes. Evaluate shadings in tone which may value one kind of person, group, etc. over another. Then ask yourself about the assumptions being made behind those descriptions. Are the concepts under consideration presented in a fair and impartial way? If opinions are given, are they clearly marked as opinions and separated from the facts?

In addition to considering the peoples and the concepts presented in the text, evaluate the attitude of the author toward the reader. Does the author's style communicate a sense of respect for the reader or a feeling of superiority over the reader? The subtle connotative meanings of the words the author chooses may be difficult to perceive, yet may strongly influence the students' attitude toward the class.

Look at the following two paragraphs which are adapted from an article in the American Bar Association Journal, July, 1949, p. 559, as seen in Muriel Mark's and Mary Roundtree's The GED Instructor's Handbook, as an example of the use of connotative meanings.

> Frank Harvey achieved notoriety by stubbornly asserting his impudent pretentions at the council meeting. He cunningly insinuated his agents into the council meeting presentation. The councilmen had no choice but to succumb to his domination.

> Frank Harvey achieved *fame* by *tenaciously* asserting his *bold claims* at the council meeting. He *skillfully introduced* his *men* into the council meeting presentation. The councilmen had no choice but to *yield* to his *leadership*.

Look at the words used. In pairs, they have similar meanings, but very different connotations:

notoriety - fame
stubbornly - tenaciously
impudent pretentions - bold claims
cunningly insinuated - skillfully introduced
agents - people
councilmen - council
succumb - yield
domination - leadership

Used altogether, it gives the same actions very different meanings.

Finally, it is essential, in the process of establishing whether or not the book is adult in tone, that biases are not overlooked. The most difficult biases to detect are those which reflect your own personal feelings, attitudes, beliefs and lifestyles. That is why it is necessary for you to be very aware of your own attitudes and beliefs before you begin judging those proposed by the instructional materials.

ACTIVITY ONE

Read the following statements and evaluate their tone. Then rewrite the sentences.

1. The radical civil rights groups pestered the state and federal governments to change the laws.

2. The womenfolk kept house while the men hunted for game and cleared the fields.

3. The pioneer faced many dangers as he moved west.

4. Often, Indians would attack isolated settlements by burning families out of their homes.

ACTIVITY TWO

Look at the following graphics and evaluate their tone. Comments appear at the end of module.

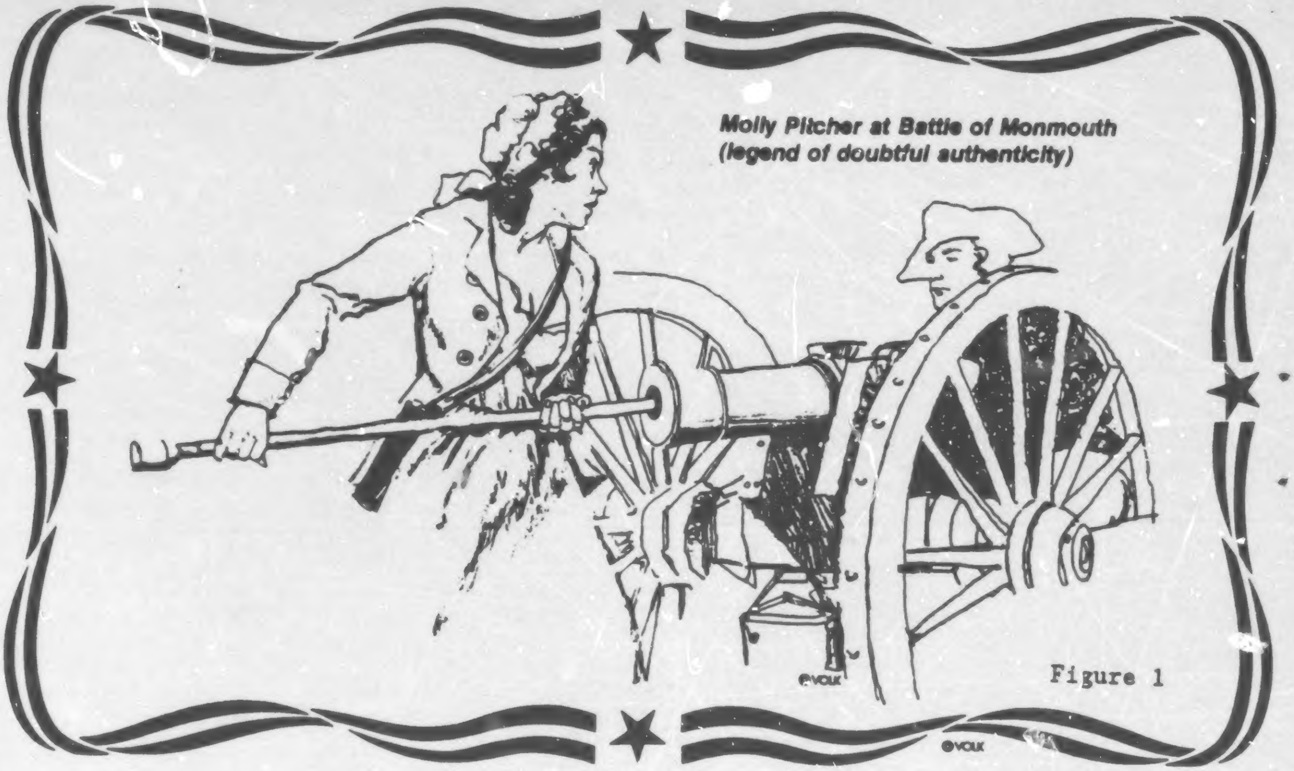

Molly Pitcher at Battle of Monmouth (legend of doubtful authenticity)

Figure 1

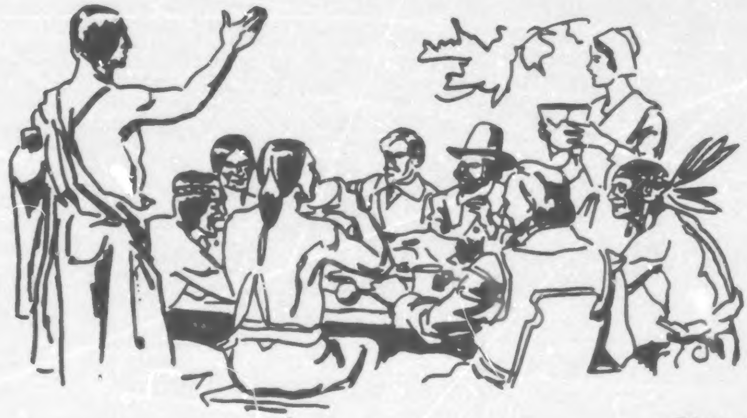


Figure 2

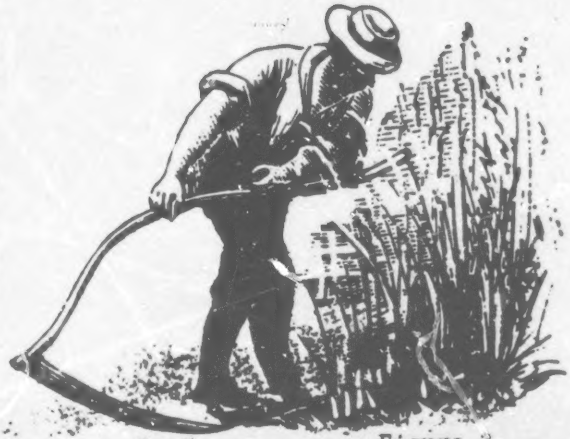


Figure 3

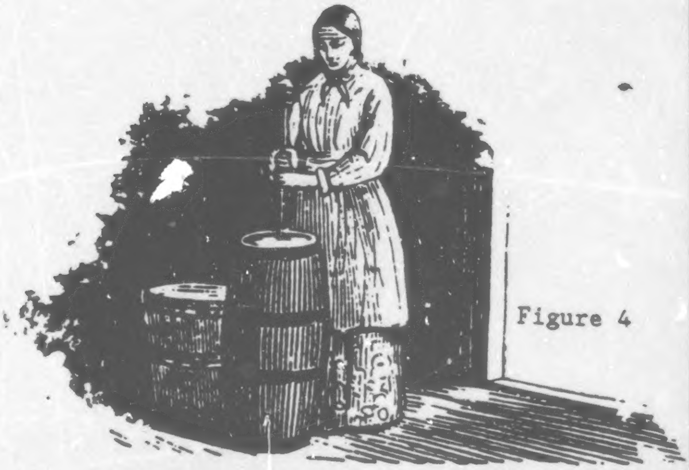


Figure 4

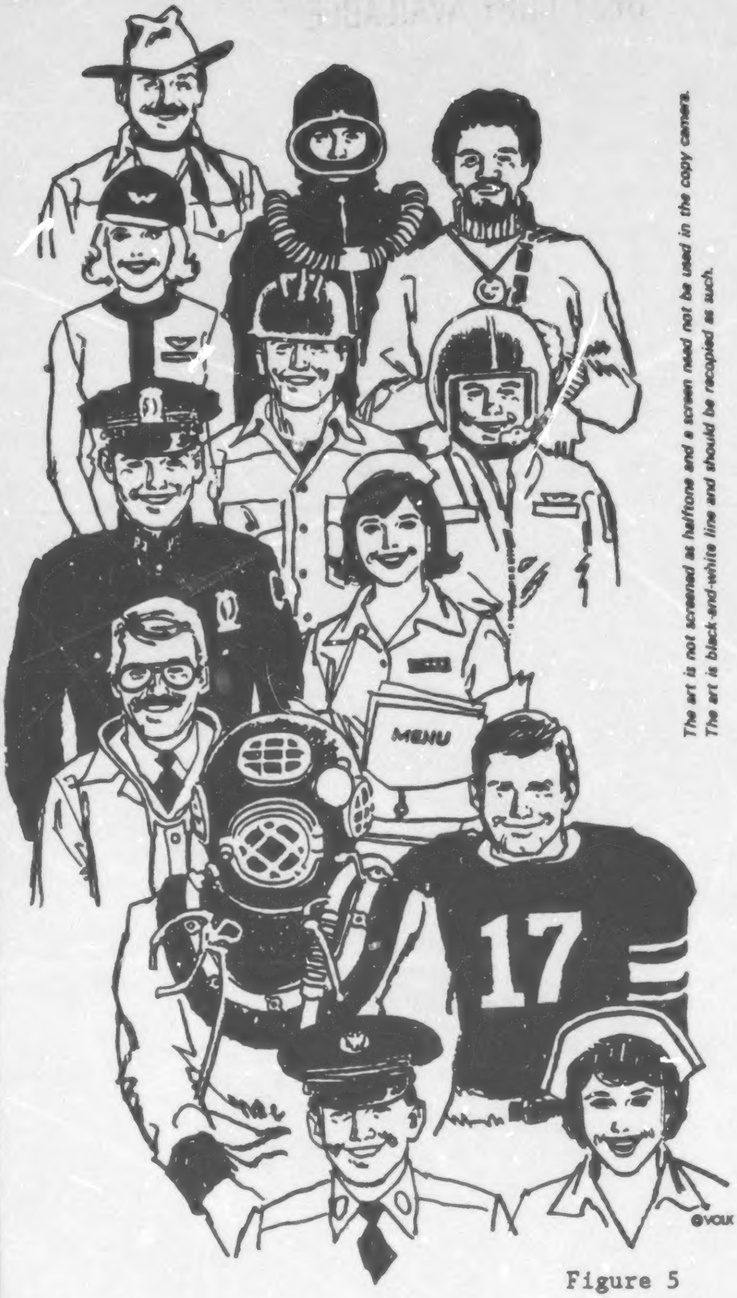


Figure 5

The art is not screened as halftone and a screen need not be used in the copy camera.
The art is black-and-white line and should be recopied as such.

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Figure 6

Figure 7

Figure 8

Figure 9

Figure 10

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Figure 11

The copyright protection is not intended to deter or inhibit the legitimate user in any way. It prohibits the mass resale of the art in another ready-to-use art collection or as stock cuts, syndicated ad mats, syndicated printing, etc.

Figure 12

Figure 13

Figure 14

Figure 15

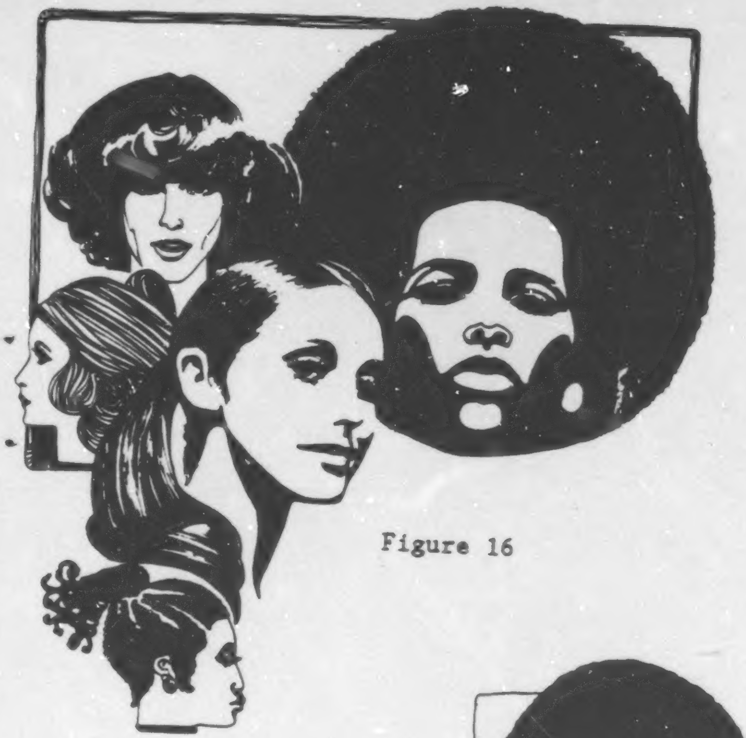


Figure 16

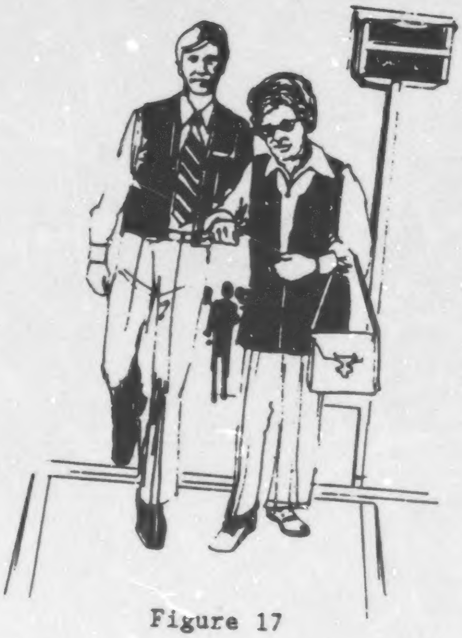


Figure 17

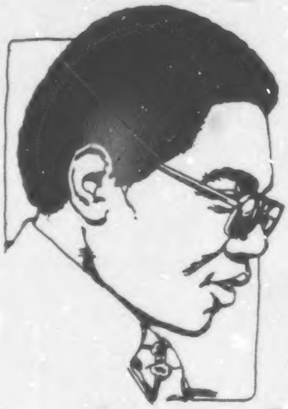
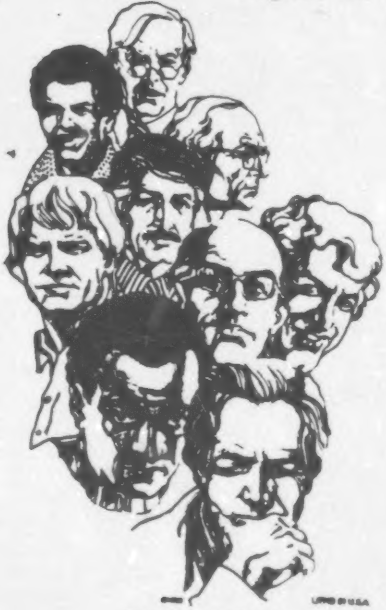


Figure 18

Figure 19



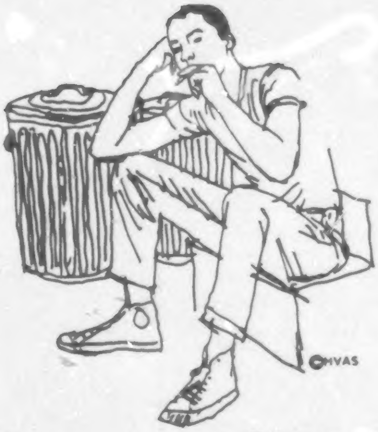


Figure 20

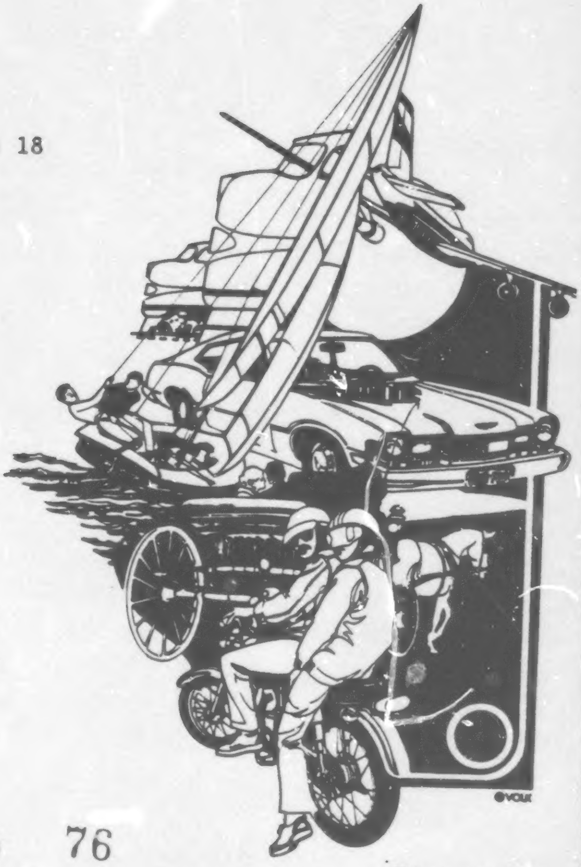


Figure 21

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ACTIVITY ONE SUGGESTIONS TO THE READER

1. The word "radical" only indicates that their philosophy is very different than the group they are being compared to. It would be better to identify their political ideology.

   The word "pester" connotes ineffectiveness and annoyance. If that is the case, why is the incident even mentioned?

2. When discussing men and women, parallel structure should always be used: men and women, or womenfolk and menfolk, or ladies and gentlemen.

   The statement obliterates the work involved with maintaining a house: chopping wood for warmth and cooking in a fireplace, making soap, and spinning and weaving.

3. Pioneers were both women and men. They both faced many dangers.

4. This sentence could just as easily be reversed. Often settlers would attack isolated (Indian) settlements by burning families out of their homes. Both sides of any incident should be discussed.

ACTIVITY TWO SUGGESTIONS TO THE READER

Figure 1	Women did work and fight during the Revolutionary War. Why not use an accurate representation of women's participation rather than this graphic of "doubtful authenticity."
Figure 2	This very stereotypical representation of Thanksgiving. In addition, it is a doubtful reflection

	of actual history: it has all the men seated and one woman serving the meals.
Figures 3 and 4	These graphics do little to reflect the effort involved with actually doing this work. It isolates the worker in a situation which would normally be family-oriented. In addition, the text would have to explain these unfamiliar activities.
Figure 5	Again, this representation depicts stereotypic careers. Women are nurses, waitresses and stewardesses, while men are pilots, doctors and policemen. In addition, the group is uniformly White, middle-class and all smiling, a simplistic view of workers.
Figure 6	The working man portrayed here stands straight with an arm on the hip; usually represents a power stance. It gives a positive view of men and work.
Figure 7	The woman here can be interpreted to be Black. She is more professionally dressed than Figure 9. The appropriateness of this graphic would depend on how it was used. If the men are dressed in business suits and protrayed as managers, this graphic would be inappropriate. If, instead, it shows a variety of women in a variety of work positions, it would be appropriate.
Figure 8	Barbie and Ken at the construction site.
Figure 9	Though this woman is presented as using a computer, her relaxed posture and short skirt do not indicate a businesslike demeanor.
Figure 10	This could be a good graphic for working relationships provided the other graphics don't place white men in higher status jobs.

Figure 11	This crowd has a mixture of both Black and White people represented, but the two forefigures are White. The male on the left can be interpreted to be a Roman Catholic priest. The women's dresses are short which dates the graphic back to the miniskirt era. The women are all dressed casually as though they worked at low-paying jobs. The men, on the other hand, are dressed in suits and carrying briefcases.
Figures 12 to 14	This all-White cast portrays men playing baseball - possibly in a city park, most likely in a uniform. They are depicted as working together. The woman, on the other hand, is water-skiing (a sport available to a very few). It is not a team sport, it is depicted as not requiring much effort, and her uniform is a bikini! This very middle-class, middle-aged couple are certainly enjoying themselves. The appropriateness of this would depend on how it was used.
Figure 15	The all-White cartoon crowd depicts three out of four men, but none of the women, in business suits. One woman is dressed in a cocktail dress next to a man with a briefcase, which seems inconsistent.
Figure 16	Modern stylized graphic of women. Emphasis is on high fashion hairdos. Two faces are from minorities. All of them look as though they are in their 20's and 30's and upper middle-class.
Figure 17	The older woman looks as though she is feeble and incapable of walking without the help of the young man beside her. Unless this is used for a specific purpose, a different graphic could present older people in a more positive light.

Figure 18	This stylized version of a young Black man portrays him as middle-class (tie) and businesslike or studious (glasses).
Figure 19	This group of men whose ages range between 20's and 50's are dressed casually in a middle-class fashion. They have a wide variety of expressions on their faces which makes it difficult to identify a unifying theme.
Figure 20	This teenage boy who is smoking cigarettes near garbage cans gives the impression of a "youth with nothing to do."
Figure 21	These are represented as exciting "action" activities promoted on TV and in magazines. They are commercial with definite upper middle-class values attached to them.

NOTE: Accompanying text and the other grahpics in the text can have a major effect on the appropriateness of the individual graphic.

Adult Basic Education: A Guide for Teachers and Teacher Trainees. NAPSAE, Washington, DC, 1966.

Amstutz, Donna D. Adult Basic Education Sourcebook. Illinois Office of Education, 1978.

Britton, Gwyneth. A Consumer's Guide to Sex, Race and Career Bias in Public School Textbooks. Corvalis, OR: Britton and Associates, 1977.

Roundtree, Mary and Muriel Marks. The GED Instructor's Handbook. Illinois State Board of Education. (No Date)

Simpson, Edwin and Phillip Loveall. Preparing and Selecting Printed Educational Materials for New Adult Readers. Eric Clearinghouse in Career Information Series No. 9 (CE007631).

MODULE 9

Format and Appearance

OBJECTIVE

Upon completion of this module, you will be able to identify the components of format and appearance, and apply their use in evaluating materials.

The format and appearance of materials is determined by the use of several technical manipulations. Publishers are acutely aware of the necessity of using these manipulations to produce an immediate reaction to a material. This reaction is a function of color, print style and size, titles, white-space and illustrations.

TYPESTYLE

Print is often not recognized as contributing to the success of a material. There are two major typestyles:

XYZ

Trooper Roman - 60-Point

1) a Roman type with serifs is best for the main body of any material. Serifs are the small projections at the top and bottom of the type. Serifs help letters blend together to form whole words. Research has shown that serifs make reading easier and faster.

XYZ

Simplex Bold - 60-Point

2) Sans serif (without serifs) type is best used for titles, subheads, explanations of illustrations, or headlines. It should not be used for the body of a material because it is less readable in large amounts than serif type. However, in small amounts, sans serif type can be quickly understood.

XYZ ***XYZ***

Helvetica Italics

3) Italics, letters on the slant, are most often used for emphasizing vocabulary, titles or subheads. Italics are more difficult to read than either serif or sans serif type. Italics do provide variety and emphasis, and can be used for such effect.

Sample sheets with a variety of typestyles are available from most printers.

EXAMPLE - SANS SERIF

Print is often not recognized as contributing to the success of a material. There are two major typestyles: 1) a Roman type with serifs is best for the main body of any material. Serifs are the small projections at the top and bottom of the type. Serifs help letters blend together to form whole words. Research has shown that serifs make reading easier and faster. 2) Sans serif (without serifs) type is best used for titles, subheads, explanations of illustrations, or headlines. It should not be used for the body of a material because it is less readable in large amounts than serif type. However, in small amounts, sans serif type can be quickly understood. 3) Italics, letters on the slant, are most often used for emphasizing vocabulary, titles or subheads. Italics are more difficult to read than either serif or sans serif type. Italics do provide variety and emphasis, and can be used for such affect.

EXAMPLE - ITALICS

Print is often not recognized as contributing to the success of a material. There are two major type styles: 1) A Roman type with serifs is best for the main body of any material. Serifs are the small projections at the top and bottom of the type. Serifs help letters blend together to form whole words. Research has shown that serifs make reading easier and faster. 2) Sans serif (without serifs) type is best for titles, subheads, explanations of illustrations, or headlines. It should not be used for the body of a material because it is less readable in large amounts than serif type. However, in small amounts, sans serif type can be quickly understood; 3) Italic (letters on the slant) type is most often used for emphasizing vocabulary, titles, or subheads. Italic is more difficult to read than either serif or sans serif type. Italic does provide variety and emphasis, and can be used for such effect. Sample sheets with a variety of typestyles are available from most printers.

PRINT SIZE

Appropriate print size varies according to the reading level and type of subject matter involved. At lower reading levels, print should be large enough to easily distinguish letters and words, but not so large to look childish. At higher reading levels, the most common problem is the use of print that is too small. The smaller the print size, the more difficult it is to maintain concentration because of the need to frequently rest the eyes.

This is 18 point type	This is 18 point type
This is 12 point type	**This is 12 point type**
This is 8 point type	This is 8 point type

Type size varies from the tallest letter above the line in the alphabet to the longest letter below the line. Usually, those are the letters "h" and "q." It does not measure the height of the curve of the "h" or the letter "q." It is their height that makes letters appear large or small. Thus, different typestyles may appear to be different sizes even though they are technically the same height.

hq hq

Ten or 12-point type is appropriate for most persons reading at the fourth grade level. Type for adult basic reading material (grades zero to four) should be 14 to 16-point type. Eighteen-point type may be too large and may appear childish. It is best used for overhead projectors or bulletin displays. This paragraph is typed in Prestige Elite - 12-pitch.

EXAMPLE

This is 18 point type. Unless a student has specific reading difficulties, it is too large to use in most ABE classes. Most adults would feel that it is too childish. This type should be reserved for use on bulletin boards and overhead projectors.

The following paragraphs of nonsense words illustrate various type sizes in helvetica (sans serif) and souvenir light (serif).

8 Pt.-1 Pt. leaded

Laeyo aoiou dxpo quto auoi bxyo mnstr. Bxny cmbent dtnsti pxrnxo. M
aoiou dxpo guto auoi bxgo. Pxrnxo bzny cmbent dtnsti. Bxyo mnstr l
dxop quto auoi. Dtnsti pxrnxo bzny cmbent. Avoi bxno mnstr laeyo a
quto. Cmbent dtnsti pxrnxo bzny. Quto avoi bxyo mnstr laeyo aoiou d
cmbent dtnsti pxrnxo. Dxpo quto avoi bxyo mnstr laeyo aoiou. Px
cmbent dtnsti. Aoiou dxpo quto avoi bxyo mnstr laeyo. Dtnsti pxrnx
Laeyo aoiou dxpo quto avoi bxyo mnstr. Bzny cmbent dtnsti pxrnxo. M

Helvetica

Laeyo aoiou dxpo quto auoi bxyo mnstr. Bxny cmbent dtnsti pxrnxo. Mnstr
dxpo guto auoi bxgo. Pxrnxo bzny cmbent dtnsti. Bxyo mnstr laeyo aoiou
auoi. Dtnsti pxrnxo bzny cmbent. Avoi bxno mnstr laeyo aoiou dxpo quto. C
pxrnxo bzny. Quto avoi bxyo mnstr laeyo aoiou dxpo. Bzny cmbent dtnsti px
quto avoi bxyo mnstr laeyo aoiou. Pxrnxo bzny cmbent dtnsti. Aoiou dxp
bxyo mnstr laeyo. Dtnsti pxrnxo cmbent. Laeyo aoiou dxpo quto avoi bxyo
cmbent dtnsti pxrnxo. Mnstr laeyo aoiou dxpo quto auoi bxyo. Pxrnxo b

Souvenir Light

10 Pt.-1 Pt. leaded

Laeyo aoiou dxpo quto auoi bxyo mnstr. Bxny cmbe
pxrnxo. Mnstr laeyo aoiou dxpo guto auoi bxgo. Pxrn
cmbent dtnsti. Bxyo mnstr laeyo aoiou dxop quto auo
pxrnxo bzny cmbent. Avoi bxno mnstr laeyo aoiou dxp
Cmbent dtnsti pxrnxo bzny. Quto avoi bxyo mnstr laey
dxpo. Bzny cmbent dtnsti pxrnxo. Dxpo quto avoi bxy

Helvetica

Stnsti pxrnxo bzny cmbent. Avoi bxno mnstr laeyo aoio dx
Dmbent dtnsti pxrnxo bzny. Quto avoi bxyo mnstr laeyo aoi
Bzny cmbent dtnsti pxrnxo. Dxpo quto laeyo aoiu dxpo quto a
mnstr. Bzny laeyo aoiou dxpo quto auoi bxyo mnstr. Bzny la
dxpo quto auoi Laeyo aoiou dxpo quto auoi bxyo mnstr. Bxn
dtnsti pxrnxo. Mnstr laeyo aoiou dxpo guto auoi bxgo. Pxr

Souvenir Light

12 Pt.-2 Pt. leaded

Laeyo aoiou dxpo quto auoi bxyo mnstr.
cmbent dtnsti pxrnxo. Mnstr laeyo aoiou dxp
auoi bxgo. Pxrnxo bzny cmbent dtnsti. Bxyo
laeyo aoiou dxop quto auoi. Dtnsti pxrnx
cmbent. Avoi bxno mnstr laeyo aoiou dxpo

Helvetica

Laeyo aoiou dxpo quto auoi bxyo mnstr. Bxny
dtnsti pxrnxo. Mnstr laeyo aoiou dxpo guto au
Pxrnxo bzny cmbent dtnsti. Bxyo mnstr laeyo aoi
quto auoi. Dtnsti pxrnxo bzny cmbent. Avoi bxn
laeyo aoiou dxpo quto. Cmbent dtnsti pxrnxo bzn

Souvenir Light

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TITLES

Bold face type can be used to identify titles and subheads which provide a logical division in the content. This helps organize the material for the students. These titles and subheads can provide guidelines and an outline. However, they should not appear cluttered or be too specific. Too many divisions may result in a fragmented material which can result in the students having a difficult time grasping the underlying concepts.

LEADING

In addition, the amount of space between printed lines affects the ease of reading. This spacing is referred to as "leading." Most often, leading will not be noticed unless the print is obviously too close together or too far apart. Make a conscious effort to check the leading of materials.

JUSTIFICATION

When print is justified, all the typed lines are even. For general reading, it is almost universal to justify left. With increased use of word processing, the computer can also justify right. Justifying right was a time-consuming task because it required variable spacing between words in order for the lines to end evenly. The variable distances between words can have an affect on the new reader who is not yet sophisticated enough to separate each word in a line. This text is written with justified left, ragged right paragraphs.

WHITE SPACE

The division of material on a page with the use of white space, subtitle, boxes and illustrations is often crucial to the success of that material. White space is the most common unifying factor of a material. On this page, for example, the white space is used to determine column length, left and right margins, and paragraph separation. It also can be used to divide content, to highlight important concepts, or to ease the reading load.

White space is most commonly noticed when there is a lack of it. A page which does not use white space effectively will look cramped, hard to read and almost like a "sea of gray."

Long lines are, in fact, more difficult to read because they require too many eye fixations by the reader. In addition, they make finding the next line more difficult because the eye has to return over too great a distance. Lines that are too short can be difficult to read because ideas are split too often, creating a jerky effect and thereby making it difficult to read. A good rule of thumb is to use an alphabet and a half (or 39 character spaces) of any type across the page for basic readers, and two alphabets (or 52 character spaces) for higher reading levels.

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ILLUSTRATIONS AND PICTURES

Illustrations and pictures can add to the distinct appearance of a book. They must, at all times, project an adult tone and have a purpose. They can clarify a concept, project a mood, provide stimulus for thought and discussion, or simply provide relief from the reading task. The text and illustrations must work to reinforce each other; otherwise, they will serve to detract from each other's meaning.

COLOR

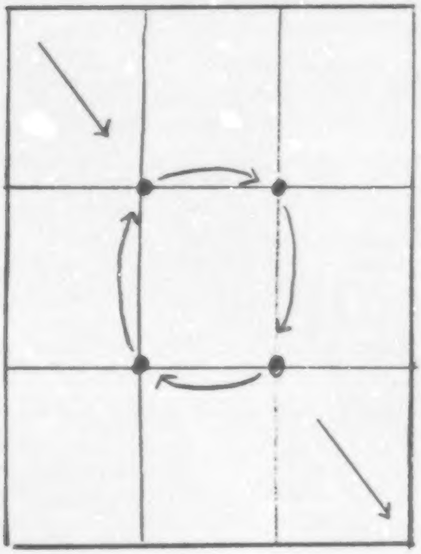
Color should provide relief from the standard black print on a white page. However, colored type should be avoided. It does not generally provide as much contrast to the background and is, therefore, more difficult to read. White type on a black background, though artistic, will sparkle and be difficult to read. Colored paper should usually be avoided for the same reason, unless used for a specific reason. White paper is the easiest to read from, but make sure that it is not so glossy as to produce glare.

White on black
tends to sparkle

LAYOUT

Though there are many formats for layout, a standard format utilizes the "golden mean" to create a grid for placing photos, bold type and print on the page.

The golden mean was originally used to help artists make sketches for their paintings. The artists knew the eye has a tendency to enter a page from the upper left and travel diagonally to the lower right. The goal of the artist is to keep the viewer's eyes in the picture. It was found that if major features of a painting were placed in the four corners of the grid, the viewer's eye would travel around clockwise.



This principle works also for textbooks, and teacher-made materials as well. It seems to allow more white space on the page and takes advantage of the natural tendency of eye movements to focus the attention of the students.

PAGE UTILIZATION

Another consideration is how the pages are used to present a concept. Are concepts or lessons complete on one page or a two-page spread? Do new lessons begin with directions at the bottom of one page with the exercises continued to the next so that a student has to constantly flip back and forth?

Do your eyes move easily from the beginning to the end of a lesson or a book? Is it necessary, instead, to constantly search for the different features of the text such as directions, objectives, questions and answers?

The following page is a grid for an 8½" by 11" page which utilizes the golden mean principle. The four interior intersections are the focal points of the page.

ACTIVITY ONE

Using the materials at your center, determine the appropriateness of the materials for adult students in terms of the technical considerations.

	Material A	Material B	Material C
Type Size:			
Typestyle:			
Titles and Subtitles:			
Leading:			
White Space:			
Illustrations:			
Color:			
Appropriateness For Adult Students (poor, fair, good, excellent):			

ACTIVITY TWO

Look at the following layouts. Evaluate them in terms of layout and design.

Think of the page as representing the first page of the same reading lesson on consumer shopping in various formats for adults reading between fourth and sixth grade.

Represents a title in bold print

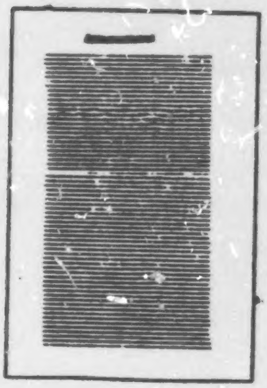
▬

Represents a subtitle in dark print

▬

Represents a line of print

—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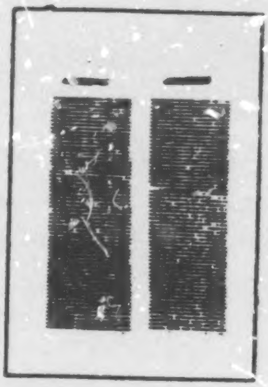
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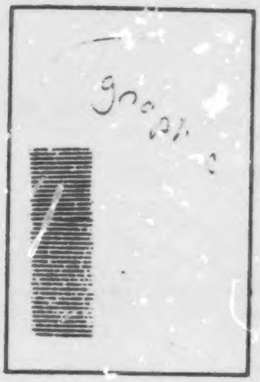
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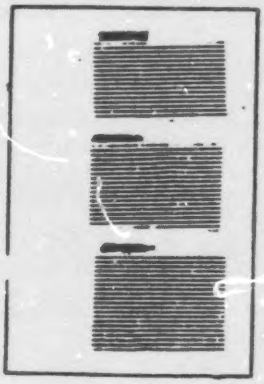
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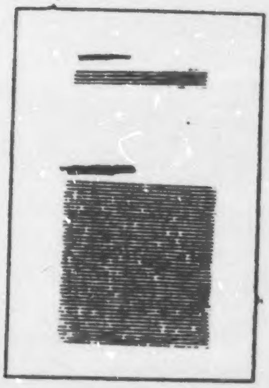
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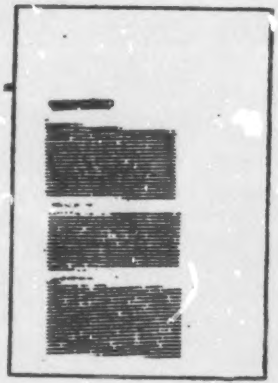
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9

For this reading level, the materials should have ample white space, headings or other indicators of subject matter, and graphics which compliment the reading material. In my opinion, figure 4 would best suit this criteria. It has a title, a graphic, a heading, and ample margins. Next would be 5, 6, 7 and 8. These have title headings, but, without a graphic, the format is static. Figure 9 has a graphic and reasonable margins. The main difficulty is with the ragged right margin around the graphic. It is more difficult for an unsophisticated reader to end at various places and return to the left to begin reading the next line, especially since their eye will have a tendency to want to travel into the picture instead. Without the graphic, ragged right is preferable to justified right. Figures 1 and 3 are inappropriate. Figure 1 has minimum margins and is a formidable sea of gray. In figure 3, the lines are less than one-fourth of a page. It looks as though the lines would be too short and choppy.

ACTIVITY THREE

Using a material of your choice, write a short synopsis of how the technical considerations relate to the entire concept, tone and usability of the material.

REFERENCES

Arnold, Edmund C. Arnold's Ancient Axioms. Chicago: Ragan Report Press, 1978.

Craig, James. Designing with Type a Basic Course in Typography. New York: Watson Guptill Publications, 1977.

Wileman, Ralph E. Exercises in Visual Thinking. New York: Hastings House, 1980.

OBJECTIVE

Upon completion of this lesson, you will be able to use readability formulas.

The purpose of readability formulas is to find a means of matching the material's level of difficulty with the students' reading ability. Most of the readability formulas give a grade level. It is up to you to match that grade with the students' grade for reading. Though it is a bit contrived to speak of grade levels for adults, it does give you an estimate for the length of the sentences and the number of difficult words in the passage.

Readability formulas are a means of measuring the average reading difficulty of a particular text. They measure observable aspects of the reading material. Thus, the formula will measure such things as sentence length, number of syllables, and frequency of word use. By combining these various factors, the various formulas can give you a grade level for the material.

The significance of readability formula is to aid the teacher in matching instructional materials to the ability of the students. Consequently, the students will not be frustrated with materials written at a level beyond their ability nor insulted by working with materials written at levels below their ability.

DALE-CHALL AND SPACHE

Dall-Chall and Spache readability formulas depend on lists of familiar words and sentence length to determine reading level. Both have a list of familiar words. The more words which appear in a 100-word passage that are not on the list, the more difficult the passage is. This is mathematically correlated to the average number of sentences in that passage. The fewer number of sentences (or the longer the sentences) in the passage, the more difficult the passage is.

The list of 3,000 words is too long to include here. Refer to The Techniques of Clear Writing (Gunning, 1950).

THE FRY READABILITY GRAPH (Grades 1-12)

The Fry readability formula looks only at the number of syllables and the number of sentences per 100 words. Then, by plotting the two factors on a graph, you can determine a readability level.

1. Count three samples of 100 words from near the beginning, middle and end of a selection. This will help you determine whether or not the text's reading progresses evenly or not. Stop your count at the 100th word, do not skip over any proper names or numerals.
2. For each sample, find the average number of sentences per 100 words by counting the number of sentences and estimating to the nearest 10th of a sentence.
3. Add the three figures (one from each sample) together and divide by three to get the average number of sentences per 100 words.
4. Now count the number of syllables in each sample. You can do this quickly by counting the extra syllables (more than one for each word) and then adding 100 to that number.
    - Count all contractions as having two syllables (can't has two syllables).
    - Count the "ed" ending as having an extra syllable only when it's pronounced separately (stopped has one syllable and wanted two).
    - For abbreviations, count the number of syllables you hear when you say them (Mr. has two syllables).
    - For numbers and letters, count each symbol as a syllable (1999 has four

syllables and IBM has three, and % is one).

5. Add the three figures (one from each sample) together and divide by three to get the average number of syllables per 100 words.
6. Plot the two figures (the average number of sentences per 100 words and the average number of syllables per 100 words) on the Fry Readability Graph. The plot will probably fall in the white area within a certain grade range. If it falls within the gray areas, the grade level scores are not valid.

Example:

(100-Word Samples)	Number of Sentences
1st Sample	6.6
2nd Sample	5.5
3rd Sample	6.8
	18.9

18.9 - 3 = Average of 6.3 for average number of sentences per 100 words.

(100-Word Samples)	Number of Syllables
1st Sample	124
2nd Sample	141
3rd Sample	158
	423

423 - 3 = Average of 141 for average number of syllables per 100 words.

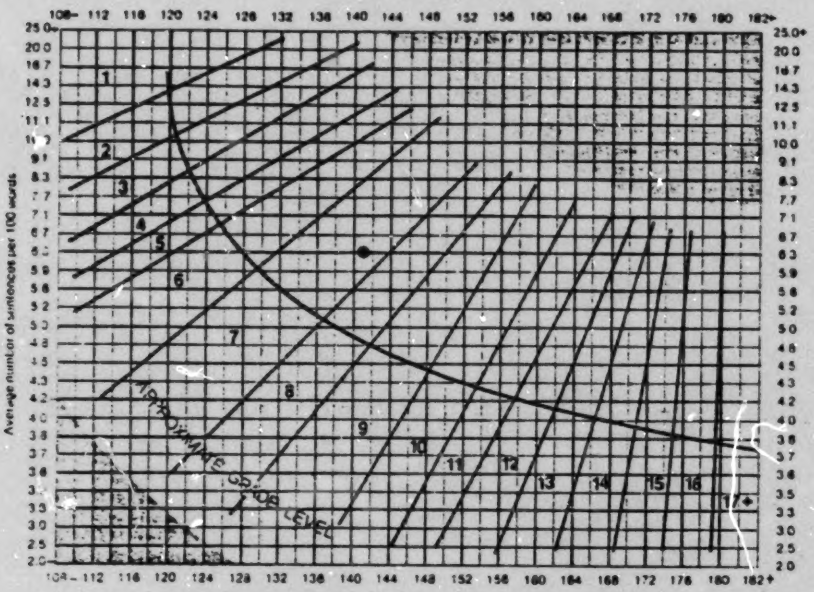
Plot falls in 7th grade range.

GRAPH FOR ESTIMATING READABILITY - EXTENDED

By Edward Fry, Rutgers University Reading Center
New Brunswick, New Jersey

Average Number of Syllables per 100 Words

SHORT WORDS LONG WORDS



Expanded Directions for Working Readability Graph

1. Randomly select three (3) sample passages and count out exactly 100 words each, beginning with the beginning of a sentence. Do count proper nouns, initializations, and numerals.
2. Count the number of sentences in the hundred words, estimating length of the fraction of the last sentence to the nearest one-tenth.
3. Count the total number of syllables in the 100-word passage. If you don't have a hand counter available, an easy way is to simply put a mark above every syllable over one in each word, then when you get to the end of the passage, count the number of marks and add 100. Small calculators can also be used as counters by pushing numeral 1, then push the + sign for each word or syllable when counting.
4. Enter graph with *average* sentence length and *average* number of syllables; plot dot where the two lines intersect. Area where dot is plotted will give you the approximate grade level.
5. If a great deal of variability is found in syllable count or sentence count, putting more samples into the average is desirable.
6. A word is defined as a group of symbols with a space on either side; thus, *Joe*, *IRA*, *1945*, and *&* are each one word.
7. A syllable is defined as a phonetic syllable. Generally, there are as many syllables as vowel sounds. For example, *stopped* is one syllable and *wanted* is two syllables. When counting syllables for numerals and initializations, count one syllable for each symbol. For example, *1945* is four syllables, *IRA* is three syllables, and *&* is one syllable.

Note: This "extended graph" does not outmode or render the earlier (1968) version inoperative or inaccurate; it is an extension. (REPRODUCTION PERMITTED—NO COPYRIGHT)

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THE GUNNING-FOG INDEX

(Grades 6-12)

Gunning-Fog index again takes a passage approximately 100 words long; then looks at hard words, any words with three or more syllables, in combination with average sentence length. Here are the steps:

1. Select three 100-word passages: one near the front, one near the middle and one near the end. Continue counting the words to the end of the last sentence.
2. For each passage, get an average sentence length by dividing the number of words by the number of sentences.
3. Count the number of hard words three or more syllables long. Count each hard word only once in each sample. For example, count the hard word "responsibility" only once, even if it is used three times in the same 100-word passage. Hard words are words of three or more syllables. DO NOT COUNT:
   a. Proper names
   b. Compound words of three syllables
   c. Three-syllable words made up of two-syllable words and the endings:
      s, es, 's, s', ed, ing, er, est, ly
   d. Numerals or numerals and symbols
   e. Initials, acronyms or abbreviations
4. Find the percentage of hard words by using this formula:

$$\frac{100 \times \text{Number of Hard Words}}{\text{Total Number of Words}} = \text{\% of Hard Words}$$

5. Add the average sentence length to the percentage of hard words and multiply by .4. That will give you a reading level.

Use the following format for calculating the Gunning-Fog Index:

a. Number of words (approximately 100) ____

b. Number of sentences ____

c. Average sentence length ____

d. Percentage of hard words +____

e. Add line c plus line d ____

f. Multiply total on line e by .4 x .4

g. Reading level ____

CLOZE METHOD

Another method you can use to determine the suitability of a text for a student is the Cloze procedure. Rather than being a measure of readability, it is a measure of the student's ability to interact with the material.

The procedure is to take a 250-word passage. Leave the first and last sentence intact. Then, for every other sentence, delete every ___th word. Usually every fifth word is best; however, you can use every eighth or tenth word. Do not omit proper nouns. Instead, omit the next word and continue counting from the omitted word. Make each blank about 15 spaces long. The blanks should be all the same length regardless of the length of the word omitted. Give the students all the time they need to fill in the exact word deleted. It must be the exact word in order to receive credit for it.

If the students fill in 60% of the blanks or more, they will probably be able to use the material independently. If 45 to 59% of the blanks are filled in correctly, the students will be able to use the material with instruction. Less than 45% and you can be sure that the material is unsuitable for your students.

Then percentages are based on the fact that the student has replaced the exact word deleted. If you have students who replace the words with synonyms and they are on the borderline, you will probably want to discuss with them which level they feel they belong on.

CONCLUSION

Readability formulas are also a means of evaluating the progression of the material in a given text. In other words, as a student proceeds through a text, the text's reading level should remain the same or increase slowly. Erratic reading levels or too great of an increase through the length of the book can only serve to frustrate the students.

Inconsistency between reading levels and the skills they are to teach are another reason for using readability formulas. Unless the texts are designed for people with varied abilities, for example, good readers with poor math abilities taking a math anxiety class offered at a community college; it is safe to assume that the reading level and the skill level should coincide. For example, text which teaches a low level math skill such as adding or subtracting whole numbers would be considered a first or second grade level skill. If that is the case, then the reading level for directions, word problems and glossary definitions should be written at the first and second grade as well.

Some texts, especially grammar or science, use such difficult technical vocabulary to describe the concepts and skills they are teaching that it is questionable that the concept should be taught at a low level. It would be preferable to teach the concept at a later date when the student is reading at a higher level, or to substitute the technical vocabulary with simpler words, graphics, and "hands on" experiments.

Readability formulas do not take into account the complexity of the readings. They only measure sentence length, not whether it is compound or complex. They do not show whether the concepts are concrete or abstract, nor do they indicate whether the material has been placed in a logical sequence. They do not indicate whether difficult words are defined contextually. The formulas cannot indicate through grade level whether the style of writing is one which your students can easily read. Satire, propaganda, irony and connotative meaning of words may be totally ignored if you depend solely on readability formulas.

Always look at them as a tool to assist you in evaluating any materials, not as a hard and fast rule.

ACTIVITY ONE

Read the following passage, filling in the blanks with the correct word (Cloze method).

From: *Gulliver's Travels* by Jonathan Swift

I lay down on the grass, which was very short and soft, where I slept sounder than I ever had done in my life, and, as I thought, about nine hours. When I awoke, it 1 ____________ daylight. I attempted to 2 ____________, but I could not 3 ____________. As I happened to 4 ____________ on my back, I 5 ____________ my arms and legs 6 ____________ strongly fastened on each 7 ____________ to the ground. My 8 ____________, which was long and 9 ____________ was tied down in 10 ____________ same manner. I also 11 ____________ several thin cords across 12 ____________ body from my chest 13 ____________ my thighs. I could 14 ____________ look up. The sun 15 ____________ to grow hot, and 16 ____________ light offended my eyes. 17 ____________ heard a confused noise 18 ____________ me, but, in the 19 ____________ I lay, could see 20 ____________ except the sky. In 21 ____________ little time I felt 22 ____________ alive moving on my 23 ____________ leg. It advanced forward 24 ____________ my breast, and came 25 ____________ up to my chin. 26 ____________ my eyes down as 27 ____________ as I could, I 28 ____________ it to be a 29 ____________ creature not six inches 30 ____________. He had a bow 31 ____________ arrow in his hands, 32 ____________ a quiver at his 33 ____________. At the same time, 34 ____________ felt at least forty 35 ____________ of the same kind 36 ____________ creature as the first 37 ____________. I found myself in 38 ____________ utmost astonishment. I roared 39 ____________ loud, that they all 40 ____________ back in a fright. Some of them, as I was afterwards told, were hurt with the falls they got by leaping from my sides upon the ground.

Measure the readability level of the following passage using both Fry and Gunning-Fog formulas.

From: Gulliver's Travels by Jonathan Swift

I lay down on the grass, which was very short and soft, where I slept sounder than I ever had done in my life, and, as I thought, about nine hours. When I awoke, it was daylight. I attempted to rise, but I could not stir. As I happened to lie on my back, I found my arms and legs were strongly fastened on each side to the ground. My hair, which was long and thick was tied down in the same manner. I also felt several thin cords across my body from my chest to my thighs. I could only look up. The sun began to grow hot, and the light offended my eyes. I heard a confused noise about me, but, in the posture I lay, could see nothing except the sky. In a little time I felt something alive moving on my left leg. It advanced forward over my breast, and came almost up to my chin. Bending my eyes down as much as I could, I perceived it to be a human creature not six inches tall. He had a bow and arrow in his hands, and a quiver at his back. At the same time, I felt at least forty more of the same kind of creature as the first one. I found myself in the utmost astonishment. I roared so loud, that they ran back in a fright. Some of them, as I was afterwards told, were hurt with the falls they got by leaping from my sides upon the ground.

ACTIVITY COMMENTS

CLOZE ANSWER KEY

1. was
2. rise
3. stir
4. lie
5. found
6. were
7. side
8. hair
9. thick
10. the
11. felt
12. my
13. to
14. only
15. began
16. the
17. I
18. about
19. posture
20. nothing
21. a
22. something
23. left
24. over
25. almost
26. Bending
27. much
28. perceived
29. human
30. tall
31. and
32. and
33. back
34. I
35. more
36. of
37. one
38. the
39. so
40. ran

FRY READABILITY

First 100 words begins with "I lay" and ends with "thighs. I could." That is 6½ sentences. There are 120 syllables. On the graph, it falls into a fifth grade reading level.

GUNNING-FOG READABILITY

First passage begins with "I lay" and ends with "look up." It is seven sentences.

1)	Number of words	103	
2)	Number of sentences	7	
3)	Average sentence length		14.7
4)	Percentage of hard words		+ 1.0
5)	Sum line 3 plus line 4		15.7
6)	Multiply total on line 5 by .4		x .4
7)	Reading level		6.28

Bormuth, John R. "The Cloze Readability Procedure," Elementary English. April, 1968, 45, pp. 429 to 436.

Dale, Edgar and J. S. Chall. "A Formula for Predicting Readability." Education Research Bulletin. January, 1948, 27, pp. 11 to 20.

Fry, Edward. "A Readability Formula That Saves Time," Journal of Reading. April, 1968, 11, pp. 513 to 516; pp. 575 to 577.

Gunning, Robert. The Technique of Clear Writing. New York: McGraw-Hill, 1952.

Nelson, Joan. "Readability: Some Cautions for the Content Area Teacher," Journal of Reading. April, 1978.

Roundtree, Mary and Muriel Marks. The GED Instructor's Handbook. Illinois State Board of Education (no date).

Simpson, Edwin and Phillip Loveall. Preparing and Selecting Printed Educational Materials for New Adult Readers. Eric Clearinghouse in Career Information Series No. 9 (CE007631).

Spache, George. Good Books for Poor Readers. Champaign, IL: Garrard Publishing Co., 1966.

OBJECTIVE

Upon completion of this lesson, you will be able to design your own supplemental lessons.

After you have evaluated your texts and selected the ones most appropriate for your program, you may find that they do not meet all your needs with all your classes. Thus, it will be necessary for you to design your own supplementary materials.

Once you have decided which section of the text you are supplementing, make a note of it on the supplemental lesson sheet. This will help your students understand how this exercise relates to the text and curriculum. It also helps you keep records of the exercises you write, and you can then have them on hand for future classes or for individual students who need extra help.

RESOURCES

Resources for supplemental materials are abundant. Class exercises can be designed from almost any freely distributed reading or graphic material.

Math exercises can be developed from:

1. Grocery ads
2. Catalogs
3. Bills
4. Advertisements

Reading exercises:

1. Newspaper stories (main idea, supporting detail)
2. Editorials (fact and opinion)
3. Advice columns (cause and effect, values clarification)

Social studies:

1. Magazine articles about current events or social problems
2. Maps

Science:

1. Pamphlets from health organizations
2. Directions for using chemicals in the home

Anything that can be read and evaluated can be made into a supplemental lesson.

PURPOSE

Second, take a moment to determine your purpose for writing this supplemental lesson because different purposes require different designs. If it is instructional, it will need class directions and examples, then practice exercises. If it is reinforcement, it will need examples, a page reference for instruction, and many practice exercises. If it is evaluative, then it will need clear instructions and exercises which are similar to those the students have studied.

DIRECTIONS

Set aside a clearly marked area for directions. They are extremely important for these students who need to know exactly what to do. Instructional materials should have the directions which explain the process involved in finding a solution, carefully outline the procedure step by step, and have an example. Reinforcement materials should briefly review the process and give an example or refer the students to the pages in their texts where they can find examples. Evaluative exercises should give clear directions on exactly how to indicate the correct answer.

The lessons should be clearly printed on the page and the exercises numbered for easy reference during grading, consulting or discussing. Instructional materials need some practice of every skill or concept building from:

1. Simple to complex
2. Concrete to abstract
3. Known to the unknown

REINFORCEMENT EXERCISES

Reinforcement materials need more exercises. Consider, too, the order of presentation for reinforcement exercises. An introductory reinforcement exercise would follow the same procedure listed above for instruction. A review reinforcement exercise would mix the various concepts or skills in the same way the problems would be mixed on a test.

EVALUATION EXERCISES

Evaluation exercises should be presented in the same way the reinforcement exercises are. It is unfair for a student to practice and review a lesson one way and be tested in a completely different way. Each question should be coordinated with a specific part of the text or teacher-made instructional materials. This guarantees that no new skill or concept for which the student is unprepared has been brought into the test situation.

ANSWER KEYS

Separate answer keys can be handed to the students as soon as they finish, allowing them to grade their work. Depending on the extent of your individualization, the keys can be simple answers or can include explanations indicating why certain answers are correct and others are not. If the exercises have a mixture of skills or concepts, a chart can indicate which questions refer to which skill. All answer keys should indicate where the students should turn for additional information or practice.

Next, the answer key should indicate a success standard that usually ranges between 80 to 95% correct.

Then there should be indicators which will tell the students who did not achieve that level where they can review the problems they missed. And then add an indicator to show them how to proceed after their review.

Finally, go through your supplemental lesson once more and evaluate it the same way you would evaluate a text. Look at its scope, sequence, readability, type size and clarity. Then test it on a group of students. Ask them to paraphrase the lesson's objectives, directions, problems and success rate. If they can do that easily, then they will be likely to do the lesson itself without difficulty.

ACTIVITY

Develop a format for writing either an instructional, a reinforcement, or an evaluative lesson. List the various organizational features each will need. Then lay out the lesson on an 8½ x 11 page of paper.

COMMENTS TO THE READER

Use the following page to help design your own supplemental lessons.

Course ______________________________ Text Reference __________

Title ______________________________ Page Reference __________

Objective: ____

Lesson: ____

____

Example: ____

Directions for Exercises: ______________________________

Exercises

If you get _____ correct, go on to page _____ in _____ text. If you get less than _____, review page _____ in _____ text.

PURPOSE RELATED TO TEXT PAGES	INSTRUCTION	REINFORCEMENT	EVALUATION
STATED OBJECTIVE	At the completion of this lesson, the student will be able to:	At the completion of this exercise, the student will be able to:	At the completion of this test, the student will know:
DIRECTIONS	1. Explain the process in clearly defined steps. 2. Have a clear example representing each concept or skill.	1. Brief review of process or simple example. OR 2. Indicate where the student can get more examples.	Indicate clearly how the students are to demonstrate their knowledge.
EXERCISES	Enough exercises to practice each skill or concept at least three times.	Should be entirely practice exercises. Introductory reinforcement goes from simple to complex exercises. Final reinforcement should mix them up.	All problems should be directly related to problems presented in text or teacher-made materials.
ANSWER KEY	1. Indication of correct or incorrect response. 2. Indication of the skill being reviewed.	1. Indication of correct or incorrect response. 2. Indication of the skill being reviewed.	1. Indication of correct or incorrect response. 2. Indication of the skill being tested.
SUCCESS STANDARD	1. Set minimum standard for mastery. 2. Indication of where the student can go for more practice. 3. Indicate what the students should do next if they are successful.	1. Set minimum standard for mastery. 2. Indication of where students can go for more practice. 3. Indicate what the students are to do next if they are successful.	1. Set minimum standard for mastery. 2. Indication of where students can go for more practice. 3. Indicate what the students are to do next if they are successful.

REFERENCES

Mager, R. F. Preparing Instructional Objectives. New York: Fearon Publishers, 1962.

Popham, James and Eva Baker. Establishing Instructional Goals. New York: Prentice-Hall, 1970.

____________________. Planning Instructional Sequence. New York: Prentice-Hall, 1970.

MODULE 12

Program Constraints

OBJECTIVE

Upon completion of this module, you will be able to identify the constraints in which your program must operate. There are many factors which can affect your selection of materials: class schedule, budget, purpose of program and community resources.

PROGRAM SCHEDULE

Examine the suitability of the materials in terms of the amount of time a student spends in class. Different materials would probably be needed for a class that meets two hours a night, twice a week, than for a class that meets four hours a day, five days a week. A general rule of thumb is the longer a student is in the classroom, the more supplemental material will be necessary. Classes which are designed as a review of previously learned concepts and meet only once a week will need texts which are concise with a minimum of exercises. Open entry-open exit programs for adults who are learning the concepts for the first time will need additional materials to work at home.

PURPOSE OF PROGRAM

The purpose of your program also needs to be examined. Is the course designed to increase skills in order to pass the GED or to continue a vocational technical program? Where a GED grammar text might be appropriate in the former situation, a business English text might be more appropriate in the latter.

BUDGET

All programs must consider the costs of the use of materials over time. A program which provides all the students' texts and allows the students to keep them should not require durable, hard-bound copies. On the other hand, programs which require that classes reuse textbooks class after class should purchase more durable copies, or reinforce the covers themselves. A duplicator book, the pages of which are designed to be removed and used for making multiple copies, is more expensive than a workbook, but it makes as many as 200 to 300 copies per page, which lowers the cost per page considerably.

Students who must buy their own texts may not be able to afford five texts for each of the five GED subjects and will prefer to buy one comprehensive review text instead, which means you may have to supplement the text with additional readings.

SUPPORT SERVICES

The sponsoring organization often provides services such as duplicating materials or making audiovisual materials such as transparencies, slides, tapes or video. Sometimes, the costs of these services are taken from the sponsoring agency's budget as a whole; other times, they may be taken from the particular program's budget. These services can be immensely helpful, so it is essential that you find out how you can use these facilities and to what extent.

AVAILABLE RESOURCES

Do you and the students have access to other sources for additional learning experiences? Some high school, college or community libraries will provide audiovisual materials and even the equipment to supplement lessons. Some also carry low-level adult reading materials, career exploration materials, large print reading materials, and GED or ABE materials to supplement the students' texts, which the students themselves can borrow. Many industries, volunteer foundations, health organizations, banks and post offices can supply an abundance of forms, brochures, advertisements and catalogues which textbooks can only duplicate. Most homes are filled with real-life examples of reading materials such as coupons, labels, bills and contracts. All these free resources can add variety and reality to the classroom experience. Do not overlook public television, radio or newspapers which may present educational programs.

ACTIVITY ONE

Develop a profile of your program using the following criteria:

1. Contact hours per session
2. Contact hours per week
3. Duration of class
4. Number of students per class
5. Total number of students
6. Student population in percentage or number:
    a. Minorities
    b. Male/female
    c. Urban/suburban/rural
    d. Economic status
7. Program objective
8. Proposed use of texts
9. Durability requirements/life expectancy
10. Budget for texts - per course, per student
11. Support services and cost (copying, ditto, audiovisual)
12. Available resources and cost
13. Additional costs to students

ACTIVITY TWO

Select materials which you would feel are appropriate for each course, staying within your budget guidelines. If you do not have access to program information and budgets, use the simulation exercise provided.

REFERENCES

Gall, Meredith, D. Handbook for Evaluating and Selecting Curriculum Materials. Boston: Allyn and Bacon, Inc., 1981.

Knowles, Malcolm. Modern Practice of Adult Education Revised and Updated. Chicago: Association Press, 1980.

Newman, Anabel. Adult Basic Education Reading. Boston: Allyn and Bacon, Inc., 1980.

CONCLUSION

In your final selection of a material, the three major components of material evaluation: the student, the teacher and the program. Each will have an effect on the type of textbook organization, orientation, evaluation, tone, format and readability which will meet your specific needs. A checklist of these concerns is presented in Appendix C for quick reference. For a more detailed checklist, see references listed below.

By using this process of evaluation, you will increase the suitability of materials for yourself, your students and your program. You will eventually save money by reducing the number of unused or unusable materials you purchase. This initial investment of time will be compensated for by the increased effectiveness of the materials.

NOTE: For a more detailed checklist, see:

Simpson, Edwin L. and Phillip Loveall. Preparing and Selecting Printed Educational Material for Adult New Readers. Information Series Number 9, DeKalb, Illinois: Clearinghouse in Career Education, 1976.

Staying within a budget of $3,500.00 select the texts you would order for the Dillon Community College Adult Education Program. Treat the imaginary materials listed below as equal in academic quality. As you make each selection, write a paragraph defending your decision. Program profile information follows.

TEXTS

Adult Education Book Company design all their texts for adults. They are careful to include multi-cultural groups in the text and emphasize the Hispanic population. They use the lowest grade paper for their texts. As a result, the book cannot withstand heavy use. To save space, lessons run continuously rather than separated to a one or two page spread. The leading is such that it helps provide clarity for reading.

They print the following texts:

- GED Review Book; $4.50 consumable copy; 150 pages; Reading Level 10.5

  Reviews all five of the GED tests. Questions are written in multiple-choice format. All subjects are covered equally. Two complete GED practice tests are provided.

- Individual Pre-GED Review Books; $3.00 each consumable copy; $3.00 durable cover for 150 pages each; Reading Level 7.5 to 9.5

  Reviews all five subject areas; provides pre and post-test. Uses multiple-choice formats, glossaries, answer keys. Gives detailed explanations of correcting incorrect answers.

- ESL Series; four-volume text at $8.00 per volume hardbound copy; $3.00 for workbooks; Reading Level 0 to 8th grade

  Develops speaking skills in format-spoken English. Vocabulary develops through real-life adult situations, emphasizing home life.

- Math Study Set; four-volume book
  Reading Level 1.5 to 2.5
  Reading Level 2.5 to 3.5 Decimal-Fractions $3.00; Duplicator $18.00
  Reading Level 3.5 to 5.5 Percents-Graphs $3.00; Duplicator $18.00
  Reading Level 5.5 to 6.5 Review, Algebra and Geometry $3.00; Duplicator $18.00

  Includes pre and post-unit tests, glossary. Gradually builds skills for test-taking. All concepts are presented in adult, real-life situations.

- Reading Series, Reading Level 1.5 to 8.0; six-volume books at 50 pages each

  Builds reading comprehension skills through short, high-interest, adult stories.

Continuing Education Text, Inc. design all their texts for adults. They are careful to include multicultural groups and emphasize the Black population. They use a high grade paper. The leading is kept to a minimum, but lessons are kept together in two-page spreads.

They print the following texts:

- GED Review Book; Reading Level 10.5; $6.00 consumable copy; $8.50 durable cover for repeated use

  Reviews all five exams, provides minimum number of exercise for each concept. Has many useful features such as pre and post-tests, and glossaries and questions written in multiple-choice format. Answers indicate the type of question missed with references to review pages. Some teachers complain that the math and science section does not provide enough practice.

- Individual Test Review Books; Reading Level 10.5; $5.00 consumable copy; $7.50 durable cover for repeated use

  Same format and publisher as above. Detailed review of GED subject matter (200 pages per book).

- ESL Reading Series; four-volume text at $3.50 per volume; Reading Level 0 to 8th grade

Consumable with corresponding duplicator books $15.00 each. Develops speaking ability through natural-spoken English. Vocabulary is built on real-life activities emphasizing jobs.

- Math Study Text; Reading Level 4.0; two-volume book
  Volume 1 Whole Numbers $3.00
  Volume 2 Fractions, Decimals and Percents $3.00

Adult-oriented text includes pre and post-tests. Real-life application of math concepts provided at the end of Volume 2.

- Reading Series; Reading Level 3.0 to 8.0; six-volume book

Builds reading comprehension about problem-solving in adult activities, health, law and government, consumer economic and community resource.

- Reading and Writing Workbook Series; Reading Level 0 to 3; workbook $4.00

Teaches adults to write and read using real-life writing situations.

NAME	PURPOSE OF PROGRAM	NUMBER OF STUDENTS	SCHEDULE	POPULATION	CLASS
GED	To obtain a high school equivalency diploma	80 3 Classes	Two days a week, 2½ hours a meeting for eight weeks	1/2 White 3/8 Black 1/8 Hispanic 70% Women, blue-collar economic status, multi-age level	Prerequesitie can read at 9.0
ABE	To prepare students for job training	1 Teacher 1 Teacher's Aid	Four days a week, five hours a day, open entry/exit	3/4 Black 1/4 Hispanic 60% Women, all unemployed; men 18 to 25 years; women 30 to 45 years	Multi-level classroom, grade levels 0 to 8
ESL Levels 1 to 4	To prepare non-English speaking students to speak and read English and do basic math, whole numbers through percents	Four classes at each level Level 1 - Double illiterate; unable to read in either their own language Level 2 - Non-English speaking, but literate in own lanauage Level 3 - Survival skills Level 4 - Pre-GED preparation	Five days a week, six hours a day	80% Hispanic 20% Oriental 50/50 Men and Women, multi-age level	

APPENDIX B

Suggested Outline for Materials Evaluation Workshop

The purpose of the training session is to make teachers and administrators aware of the criteria they should use to determine whether or not materials are suitable for adults.

In evaluating materials, it is necessary to consider who will use them, how they will be used, and why they are being used. Only then can textbooks be chosen which meet the needs of the people involved.

Each module will be accompanied by related exercises.

CONTENT

INTRODUCTION

- Opportunitites to get to know one another
- To establish the goals of the program
- To have those goals interface with the goals of the participants
- In small groups, the participants will identify a recently undertaken learning project

Establish:

- What they learned
- How they learned it
- Why they learned it

Conclusion: Will establish the foundation for the following modules.

ADULT AS LEARNER

- The difficulty of re-entry
- Physical changes during maturity

TEACHING STYLE

- Members identify for themselves a particular teaching situation
- Take survey for teaching style
- Discuss variety of methodologies
- Discuss strengths and weaknesses of each
- Determine textbook characteristics necessary for each method

TEACHER STRENGTHS	- Specify background knowledges of each teacher - Identify weaknesses in knowledges for classroom instruction - Discuss ways to overcome weaknesses
LEARNING STYLE	- Members take learning style survey - Discuss variety of answers and consequences for learning situation
TEXTBOOK ORGANIZATION	- Features - Reinforcement, diagnosis, assessment - Skills development or content
ORIENTATION OF MATERIAL	- Review the different theories of Ausubel, Bruner, Gagne, and give examples of their application to textbooks
TONE AND BIASES	- Sex bias - Racial/cultural biases
FORMAT AND APPEARANCE	- Layout and design - Print size - Typestyles - Leading
GRAPHICS	- Field inbeddedness - Concrete to abstract designs
READABILITY	- Gunning-Fog - Fry - Cloze procedure

PROGRAM CONSIDERATIONS

- Classroom goals
- Classroom schedule
- Textbook construction
- Textbook costs
- Support services
- Available alternative resources

HANDS-ON EVALUATION

- Small group evaluation of current texts
- Group consensus on criteria for evaluating materials. The results will be typed and mailed to each participant.
- Evaluation of the training sequences through discussion and in writing

APPENDIX C

Materials Evaluation Checklist

1. Are the materials oriented to adult experiences?

___ Language adult in tone
___ Graphics represent adult activities
___ Situations or examples representative of adult life
___ Avoids cultural, sexual, age and class biases
___ Text does not label the adult with a child's grade level

2. What features does the text contain to facilitate organization?

___ Table of contents
___ Lessons clearly marked
___ Adequate practice exercises
___ Variety of exercises provided
___ Chapters or units clearly marked
___ Directions clearly stated
___ Examples provided
___ Behavioral objectives provided
___ Standard for successful completion indicated
___ Answer key provided
___ Graphics supplementing the reading
___ Glossary
___ Index
___ Progress chart
___ Teacher's manual
___ Texts can be used in multiple setting
___ Texts can be used with various teaching techniques

3. Is the construction and use of the text consistent with the cost?

___ Cover not easily soiled
___ Cover is sturdy and will protect text throughout expected life
___ Spine is not easily broken when text is opened flat
___ Paper is clean and easy to read
___ Texts are reusable
___ Duplicating texts will make ___ copies

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4. What is the orientation of the textbook?

___ Skills Development
    ___ Differentiates among skills
    ___ Skills develop from the factual to the analytic
___ Content Development
    ___ Information is self-contained
    ___ Material proceeds from the simple to the complex
    ___ New concepts are related to previously presented ones

5. How do the graphics compliment the book?

___ Does not reflect age, cultural, social or sexual biases
___ Graphic design, whether simple to complex or concrete to abstract, coincide with the reading level of the text
___ Graphics reflect the material the student is reading

6. Are diagnosis and evaluation procedures provided?

___ Pre and post-tests are clearly marked
___ Practice exercises for the tests are provided
___ Unit tests are clearly marked
___ Reasonable standards are set for the successful completion of each
___ Explanations given about the type of question asked
___ Explanations given about the type of question missed
___ System to show the student where he/she can review missed responses

7. What role does readability play?

___ Readability remains constant or increases at a gradual rate throughout the text
___ Sentence structure is direct (active rather than passive)
___ Reasonable variation of sentence length and construction to provide interest
___ Printing lines do not run the entire length of the page, Rule of Thumb: the line should run approximately the length of the alphabet written one and a half to two times in that type
___ White space, bold type, color, boxes or lines are used to make reading easier